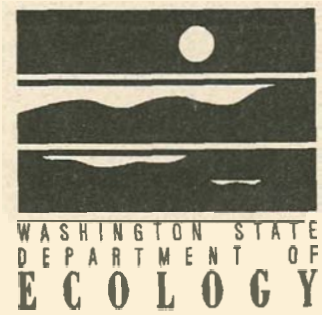

Water Resource Data Source Book

November 1992
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WATER RESOURCE DATA MANAGEMENT TASK FORCE

WATER RESOURCE DATA SOURCE BOOK

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92-86

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INTRODUCTION

Welcome to Washington State's *Water Resource Data Source Book*!

The *Water Resource Data Source Book* is a reference book showing data available for Washington State's water resources. It begins with this Introduction that explains the emphasis on managing the State's water resources, the purpose of the *Source Book*, how the *Source Book* will be enhanced, and how copies can be obtained. Next the Water Resource Data Availability Survey process that collected the information is explained. A Data Availability Index provides an overview of the data maintained by different organizations according to broad data groupings. The major portion of the *Source Book* is the Data Availability Detail that shows the type of data maintained by each organization according to the broad data groupings. Data Definitions are provided for the broad data groupings. Finally, an explanation is provided about how the *Source Book* can be enhanced and expanded through a continued Data Availability Survey.

Water Resource Five Year Plan

Management of the State's water resources became a major State initiative in 1990 when the Legislature enhanced the water resource management statutes. A Water Resource Data Management Task Force was established to prepare and manage a comprehensive Water Resource Data Management Program. That Task Force developed the *Preliminary Findings and Recommendations of the Water Resource Data Management Task Force* in September, 1990. They subsequently developed an *Interim Action Plan* and have just completed a *Five-Year Water Resource Data Management Plan*.

The *Preliminary Findings and Recommendations*, the *Interim Action Plan*, and the *Five-Year Plan* emphasize the need to inventory existing data pertaining to the State's water resources and to promote the sharing of those water resource data. This *Water Resource Data Source Book* is the first step to inventorying existing water resource data and promoting the sharing of those data.

Source Book Purpose

Ideally, there would be an electronic network connecting all organizations that collect and maintain water resource data. Any person interested in acquiring those data would go to the network to obtain data they need. However, this ideal situation is not available today and many people are not even aware of data that already exist, let along access those data over an electronic network.

The purpose of the *Water Resource Data Source Book* is to provide information about the existence and availability of water resource data. It is the first step in promoting the sharing

of water resource data within and between organizations. It is the first step toward achieving the ideal situation described above.

Source Book Enhancement

The *Water Resource Data Source Book* is an initial effort to improve water resource data sharing. There were no similar publications to use as a guide, and there was no list of potential contributors except those identified in the course of the Survey. Also, there was no information on who would use this *Source Book*, or to what extent it would be used.

Readers of the *Source Book* are cautioned to consider the pioneering nature of this Source Book. Its completeness and format are evolving, and future editions will become more mature. This edition depended on voluntary contributions where contributors completed a lengthy Survey form. Major efforts by the editors and contributors produced this first edition, and its potential shortcomings are recognized.

The *Water Resource Data Source Book* will continue to be enhanced as additional information is gained about the existence and availability of water resource data. There are two processes for gaining additional information. The first process is for the Water Resource Data Management Task Force to continue identifying organizations that maintain water resource data and have them complete a Water Resource Data Availability Survey. The second process is for readers of this *Source Book* to identify additional organizations that maintain water resource data and have them complete the Water Resource Data Availability Survey, or to enhance the data they initially supplied. The Data Availability Survey at the end of this *Source Book* explains how new and updated information can be provided for the next edition.

The *Water Resource Data Source Book* will ultimately be changed to a Water Resource Data Guide that will be available in electronic form. The exact nature of this Data Guide and the date of its release will be determined by one of the Activities identified in the *Five-Year Plan*.

Source Book Copies

Additional copies of this Source Book can be obtained from:

Washington State Department of Ecology
Publications
P.O. Box 47600
Olympia, Washington 98504-7600

WATER RESOURCE DATA AVAILABILITY SURVEY

A Water Resource Data Availability Survey was conducted to obtain information for the *Water Resource Data Source Book*. This Survey was coordinated with the Water Resource Data Needs Survey that was conducted during the same time to identify data needed for proper management of the State's water resources.. The Survey process and results are explained below.

Survey Process

Information for the *Water Resource Data Source Book* was obtained through a Water Resource Data Availability Survey. A survey form was designed to obtain information about the type of data collected and maintained by organizations, not the method of storage. The intent was to identify existing data and information about what those data represent. Subsequent data inventories will collect information about the storage of those data.

Broad data groupings were identified for the Survey. These groupings consist of broad data subject areas, such as Stream data, and data subject groups within those broad areas, such as Stream Quantity data. The definitions of the data subject areas and data subject groups are shown in the Data Definition section of this *Source Book*.

Organizations that were known to collect and maintain water resource data were identified and individual contacts within those organizations were located. Survey forms were sent to those individual contacts for completion. Information supplied on the survey forms were compiled into this *Source Book*.

Survey Response

Survey forms were distributed to 126 different individuals. Survey responses were received from 44 individuals in 20 separate organizations. A total of 178 survey forms were completed resulting in 284 sets of survey data for specific data subject areas and data subject groups.

Most survey responses provided information about data for the water resource rather than for ancillary subjects. Nearly 30 percent of the survey responses provided information about Stream data, followed by nearly 20 percent for Well and Ground Water data. Another 20 percent of the responses provided information for Reservoir, Estuary, Lake, and Spring data. The remaining responses provided information for the remaining data groupings. Only two data subject groups, Snow Pack Quality and Spring Resource, did not receive any responses.

Data Description Enhancements

The Survey contained questions about enhancement of the data subject areas and data subject group definitions. The specific questions are listed below.

A. Do you have any suggested adjustments to the Data Subject Area or Data Subject Group definition? Please describe.

C. If this is a Data Subject Area, are there any Data Subject Groups not identified here which should be explored for this data subject area? If so, please describe:

D. Are there any additional water resource Data Subject Areas not identified here which should be explored? If so, please describe:

There were several excellent suggestions for enhancements to the data definitions. The enhancements suggested are listed below by data subject area. The survey reference number follows each suggestion to identify the source of that suggestion. The suggestions have not yet been incorporated into the data definitions. However, the data definitions will be enhanced following a review of all comments received.

Climate Data Subject Area

This Data Subject Area may be too general. We have data for at least two areas in this group: precipitation and rain-on-snow zones. These two areas have differing characteristics describing them. Rain-on-snow zones may fit into the Snow Pack Data Subject Area. (030)

Dam Data Subject Area

Were do natural dams, like Mt. St. Helens, go? (019)

Estuary Data Subject Area

Include Habitat, Shoreline, Bathymetry, Ownership / Jurisdiction / Permits, Uses, Improvements / Facilities, and Oceanographic / Navigability Data Subject Groups. (034)

Geographic Locator Data Subject Area

This seems to be a different domain of information relative to the other data subjects. For example, in a Geographic Information System this type of data

will be tightly linked to all the relevant subject areas. Also, a Geographic Information System should be able to convert from one projection to another. This doesn't fit into Water Resource Data. (030)

Have no idea what this Data Subject Area is for, except benchmark sites. (034)

Land Parcel Use Data Subject Area

The Parcel concept is not limited to county defined land parcels. (030)

Ocean Data Subject Area

Refer to 'marine waters' rather than 'ocean'. (034)

The sentence 'Ocean waters continue shoreward ...' implies waters all the way up an estuary would be ocean. Add a 'or to seaward limit of estuarine waters' to the definition. You may have implied a shoreline datum in this definition, but others may disagree. (034)

Add Habitat, Shoreline (datums, definitions, legal definitions, ownership), Bathymetry (coverage, currency, accuracy), Oceanography (currents, navigability), Uses, and Jurisdiction Data Subject Groups. (034)

Stream Data Subject Area

Adjust Stream Quantity to include flood flow and base flood conditions. (003)

Add data subject group for Coastal Flood Hazard Areas. (003)

Add biological community data, such as stream macro-vertebrates and habitat to Stream Resource Data Subject Group. (016)

Upland Data Subject Area

Does this data subject area fit within water resource data? It seems like an 'all Other' category that could include everything from micro-wave communication site information to geological structure information would be more appropriate. (030)

Water Management Area Data Subject Area

Include examples, such as watershed, Water Resource Inventory Area, Sub-Basins, Hydrologic Units, Municipal Watersheds, etc. (030)

Include Water Resource Inventory Units and Hydrologic Units. (031)

Water Resource Study Data Subject Area

This is very general and probably covered by the other data subject areas. (030)

Water Right Data Subject Area

How is this different from the Water Resource Regulation Data Subject Area? (019)

New Data Subject Areas

Add Aquatic Land Resource. (030)

WATER RESOURCE DATA AVAILABILITY INDEX

The Water Resource Data Availability Index is a matrix of organizations and the broad data groupings. It provides an overview of data that are available from each organization.

A three-digit reference number was assigned to each Water Resource Data Availability Survey. That number represents a specific individual in a specific organization that completed one or more survey responses. For example, if a specific individual completed four separate survey forms for four broad data groupings, all of those survey forms contain the same reference number. The reference number connects the sets of information provided by an organization to information about that organization.

The Index is shown on the following pages. The next section after this Index provides the Data Availability Detail in alphabetical order by data subject areas and data subject groups. The following section provides information about the organizations in order by the reference number. The Table of Contents can be used to identify specific pages for the data availability detail and the organization information.

	Data Organization																						
Data Subject Area	Department of Ecology	Department of Fisheries	Department of Health	Department of Natural Resources	Environmental Protection Agency	Jefferson County	Makah Tribal Planning Department	National Oceanic & Atmospheric Admin.	Pierce County	Puget Sound Water Quality Authority	Quileute Indian Tribe	Recreation Caucus	Seattle-King County	Seneca Food Corporation	Soil Conservation Service	Thurston County Public Health	U.S. Army Corps of Engineers	U.S. Forest Service	U.S. Geological Survey	University of Washington
Climate	X			X				X				X	X		X		X		X	
Dam	X			X						X		X					X		X	
Estuary	X			X	X				X			X							X	
Geographic Locator	X			X					X				X				X		X	
Ground Water	X																			
Descriptive	X								X				X						X	
Quality	X								X				X	X					X	X
Quantity	X				X				X				X	X			X		X	
Use	X								X										X	
Hydropower Site	X	X										X							X	
Lake																				
Descriptive		X																	X	
Quality	X				X				X							X			X	X
Quantity									X				X						X	
Resource																			X	
Use	X								X			X							X	
Land Parcel																				
Descriptive	X			X					X			X								
Use	X			X								X								
Marsh/Swamp/Bog	X			X															X	X
Ocean				X	X														X	
Reservoir																				
Descriptive	X			X								X					X		X	
Quality	X																X		X	
Quantity	X				X							X					X		X	
Resource																	X			
Use	X																X		X	

Data Subject Area	Department of Ecology	Department of Fisheries	Department of Health	Department of Natural Resources	Environmental Protection Agency	Jefferson County	Makah Tribal Planning Department	National Oceanic & Atmospheric Admin.	Pierce County	Puget Sound Water Quality Authority	Quileute Indian Tribe	Recreation Caucus	Seattle-King County	Seneca Food Corporation	Soil Conservation Service	Thurston County Public Health	U.S. Army Corps of Engineers	U.S. Forest Service	U.S. Geological Survey	University of Washington
Snow Pack															X					
Descriptive																	X		X	
Quality																				
Quantity																	X		X	
Spring																				
Descriptive	X												X						X	
Quality	X												X						X	X
Quantity	X				X														X	
Resource																				
Use	X																		X	
Stream																				
Descriptive	X			X	X				X			X	X				X	X	X	
Quality	X	X			X				X		X	X	X			X	X		X	X
Quantity	X							X	X			X	X			X	X		X	
Resource	X				X							X					X			
Use	X	X										X							X	
Upland	X			X					X			X	X						X	
Water Facility	X		X			X			X				X						X	
Water Management Area	X			X					X			X	X						X	
Water Pollution	X				X				X	X			X						X	
Water Resource Organization												X								
Water Resource Regulation	X			X					X			X	X							
Water Resource Study	X			X								X	X						X	
Water Right	X			X					X			X								
Well																				
Descriptive	X			X		X			X				X			X			X	
Quality	X				X	X			X				X			X			X	
Quantity	X								X				X			X			X	
Use	X								X				X			X			X	

WATER RESOURCE DATA AVAILABILITY DETAIL

The detailed information about the availability of water resource data obtained from the Surveys is listed below under the appropriate data subject areas and data subject groups. A brief definition of each data subject area and data subject group is provided. The complete definitions are contained in the Data Definition section.

The information about existing water resource data is listed in outline form according to the questions asked in the Survey. The questions from the Survey are shown below as a reference for the information provided.

Geographic Area(s):	What geographic area(s) does the data reflect?
Time Period(s):	What time period(s) does the data reflect? (Include specific years, months, and dates as appropriate when the data were originally collected or measured. For example, from March, 1988, to May, 1990.
Data Organization:	How are the data organized and recorded? If spatial, please indicate the method used to capture / generate the data. For example, air photo, field survey.
Units of Measurement:	What are the units of measurement used in recording the data, and the accuracy or resolution for those units of measurement? For example, to the nearest ten meters. Include as many resolution / accuracy levels as apply to your data. If the resolution spans several levels, please indicate in the "resolution" column a range.
Reference Method(s):	What is the geographic reference method(s) for defining locations relative to the data? For example, Latitude / Longitude, State Plane Coordinates, Public Land Survey.
Unique Identifier(s):	What method is used to uniquely identify each water resource item in this Data Subject Area or Data Subject Group? For example, how are surface water bodies identified?
Collected or Acquired:	Are these data collected by your organization, or acquired from another organization?
Collection Frequency:	If collected, how frequently are they collected?

Continued Collection:	Do you plan to continue collecting these data for the next five years?
Acquired From:	If data are acquired, from what other organization(s) are they acquired?
Data Alteration:	Do you alter or adjust the data in any way after you acquire them? If so, please describe:
Additional Data Plans:	Are there additional data in this Data Subject Area or Data Subject Group that you plan to start keeping and/or collecting within the next five years? If yes, please describe the nature and source of the new data:
Data Accuracy:	How would you characterize the accuracy of the data you keep in this Data Subject Group or Data Subject Area? That is, how well do they reflect the real world?
Accuracy Variation:	Does the accuracy vary over time? If so, please describe, in relation to time frames identified in question Number 2:

Any lengthy narrative that applied to several data subject areas was placed under the specific organization in the next section. Any single response that applied to more than one data subject area or data subject group was replicated under each of those data subject areas or data subject groups. The intent is to provide a ready reference to available data, not to have the reader go through a variety of cross references.

The information is listed by organization under each data subject area or data subject group. The organizations are listed in alphabetical order. The reference number is shown in parenthesis after the organization name.

Climate Data Subject Area

The Climate Data Subject Area includes any data pertaining to either the prevailing meteorological conditions of an area or region, or the specific meteorological conditions at a particular location and time.

Department of Ecology (026)

Geographic Area(s):	Cascade and Puget Sound area in Thurston and Pierce counties.
Time Period(s):	
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	University of Washington, U.S. Weather Bureau.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	100%.
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	Precipitation State wide.
Time Period(s):	
Data Organization:	Spatial from National Oceanic and Atmospheric Administration Maps.
Units of Measurement:	Inches.
Reference Method(s):	State Plane Coordinatese.
Unique Identifier(s):	Rain-on-snow zone code. Average precipitation values.
Collected or Acquired:	Rain-on-snow collected. Precipitation Isohyetals acquired.
Collection Frequency:	One time data entry.
Continued Collection:	
Acquired From:	National Oceanic and Atmospheric Administration
Data Alteration:	Digitize maps.
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

National Oceanic and Atmospheric Administration (001)

Geographic Area(s):	Idaho, Oregon, Washington
Time Period(s):	Period of record for each site.
Data Organization:	Tabular data in climate summaries by month and year.
Units of Measurement:	Precipitation 0.01 inch. Temperature 0.1 degrees Fahrenheit.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Each site is identified by a National Weather Service Handbook Site-Identification, Climate Center State Station Number, or both in many cases.
Collected or Acquired:	Both.
Collection Frequency:	Annually, monthly, weekly, daily, hourly.
Continued Collection:	Yes.
Acquired From	U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, Soil Conservation Service, U.S. Geological Survey, and others.
Data Alteration:	Some quality control is done on incoming data. If we find bad data from another agency we report the problem to them.
Additional Data Plans:	No.
Data Accuracy:	90%.
Accuracy Variation:	No. However, real time live data tend to be more error prone.

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. This is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on gauge converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.

Unique Identifier(s):
Collected or Acquired: Both.
Collection Frequency: Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. Surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:
Acquired From:
Data Alteration:
Additional Data Plans:
Data Accuracy:
Accuracy Variation:

Seattle-King County (035)

Geographic Area(s): Redmond-Bear Creek Groundwater Management Area.
Issaquah Creek Valley Groundwater Management Area.
Vashon-Maury Island Groundwater Management Area.
Time Period(s): December, 1989, to present.
Data Organization: Tabular.
Units of Measurement: 0.01 inches.
Reference Method(s): Township / Range / Section / sixteenth Section.
Street address.
Unique Identifier(s): Site name, street address, and Township / Range / Section / sixteenth Section.
Collected or Acquired: Collected and acquired.
Collection Frequency: Daily.
Continued Collection: Yes.
Acquired From: King County Surface Water Management
Washington State Department of Natural Resources
City of Redmond Department of Public Works
King County Solid Waste Division for Cedar Hill Landfill rain data.
Data Alteration: Data format only.
Additional Data Plans:
Data Accuracy: 95%.
Accuracy Variation:

Seattle-King County (036)

Geographic Area(s): Issaquah Creek drainage basin
McDonald Creek and Mason Creek.
Time Period(s): January, 1989, to June, 1992.
Data Organization: Tabular.

Units of Measurement:	Wind direction in degrees. Wind speed 0.1 miles/hour. Barometric pressure 0.01 inches mercury at 25 degrees Celsius. Precipitation 0.01 inches. Air Quality, sigma theta, degrees. Temperature 0.1 degrees Celsius.
Reference Method(s):	State Plane Coordinates, Public Land Survey.
Unique Identifier(s):	Weather station at Cedar Hills Landfill.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	Digitize maps.
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	Quality changes occur due to fluctuation in instrumentation performance.

Soil Conservation Service (042)

See description of climate data contained in the reference.

U.S. Army Corps of Engineers (018)

Geographic Area(s):	Southeastern Washington Mill Creek Lake Project.
Time Period(s):	Mid 1960's to present
Data Organization:	Tabular.
Units of Measurement:	Thermometer to nearest degree. Rain Gauge to nearest 0.1 inch.
Reference Method(s):	State Plane Coordinates, Public Land Survey.
Unique Identifier(s):	U.S. Geological Survey name for area.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980.

	Some hydropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Geological Survey (037)

Climate data the U.S. Geological Survey collects and maintains are limited to individual studies. For many studies, the U.S. Geological Survey relies on National Weather Service data.

Glacier data for Washington State are available through the U.S. Geological Survey Ice and Climate Research group at the University of Puget Sound in Tacoma. This group makes mass balance determinations for a number of glaciers in Washington State. Contact Robert M. Krimmel, (206) 593-6516.

Dam Data Subject Area

The Dam Data Subject Area includes any data pertaining to the identification, location, and description of a dam, excluding hydropower production, stream data, and reservoir data.

Department of Ecology (026)

Geographic Area(s):	South Puget Sound, Nisqually River.
Time Period(s):	
Data Organization:	
Units of Measurement:	
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	
Continued Collection:	
Acquired From:	Tacoma City Light, U.S. Geological Survey.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	100%.
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	State, private, and some Federal and Tribal forest lands.
Time Period(s):	
Data Organization:	Spatial from U.S. Geological Survey 7.5 minute Quadrangles. Updated through additional sources.
Units of Measurement:	
Reference Method(s):	Geographic Information System base in State Plane Coordinates.
Unique Identifier(s):	
Collected or Acquired:	Collected for updates. Acquired from original 7.5 minute Quadrangles.
Collection Frequency:	As required.
Continued Collection:	Yes.
Acquired From:	Original map data from U.S. Geological Survey.
Data Alteration:	Digitalization by hand and scanning.
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Puget Sound Water Quality Authority (017)

Geographic Area(s):	Puget Sound and major rivers draining into Sound.
Time Period(s):	March, 1989, to present.

Data Organization:	Tabular and spatial.
Units of Measurement:	Varies.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Varies according to agency collection. Usually three letters followed by three numbers.
Collected or Acquired:	Acquired.
Collection Frequency:	Annually, monthly, and weekly.
Continued Collection:	Yes.
Acquired From:	Department of Ecology, Department of Health, Department of Natural Resources, Department of Fisheries, U.S. Fish and Wildlife Service, Department of Wildlife.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	90 to 94%.
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide for river flow data and legal data. Nationwide for reports.
Time Period(s):	Reports 1973 through 1992. River flow data to publication of first Guide Books.
Data Organization:	Tabular and spatial. For Guide Books visual observations by boaters and U.S. Geological Survey gauge readings where available.
Units of Measurement:	Cubic feet per second, gradient in feet per mile, and feet and inches on gauge which is converted from a table to cubic feet per second.
Reference Method(s):	Number on gauging station for flow data. River stretches by river name and geographical features that define the start and end of a stretch.
Unique Identifier(s):	Name of river from a map. The stretch is identified by names of geographic features and sometime by names given by recreationalists.
Collected or Acquired:	Both.
Collection Frequency:	Data collected by boaters to satisfy needs of Guide Books. Data have been collected on Trip Reports.
Continued Collection:	Yes.
Acquired From:	Washington Kayak Club, Paddle Trails Canoe Club, Washington River Rafters Club.
Data Alteration:	None.
Additional Data Plans:	Data could be collected from Whatcom County, Spokane Kayak and Canoe Club, Puget Sound Paddle Club, Boeing White Water Club, Desert Rats Kayak Club in Ellensburg.

Data Accuracy:	80%.
Accuracy Variation:	Yes. U.S. Geological Survey gauging stations are subject to damage. Also, the gauging stations are too few and are not always located to reflect correct flow in a particular stretch of river.

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hydropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Geological Survey (037)

The location, description and identification of existing and proposed dam sites are available in written format only. The U.S. Geological Survey obtains this information from the U.S. Army Corps of Engineers and the Bonneville Power Administration.

Estuary Data Subject Area

The Estuary Data Subject Area includes any data pertaining to the location, identification, description, quantity, quality, or use of estuary water.

Department of Ecology (044)

Geographic Area(s):	Quilcene, Dabob Bay Watershed, Big Quilcene, Little Quilcene, Donovan, Leland, Coyle, Tarboo Creeks, and Cemetery Drain.
Time Period(s):	July, 1986, to April, 1987.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Jefferson County Water Quality Program P.O. Box 1220 Port Townsend, Washington 98368 Glenn Gately (206) 385-9355.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	Uncertified lab used for analysis lack of Quality Assurance / Quality Control program.

Department of Ecology (044)

Geographic Area(s):	Belfair, Hood Canal, Lynch Cove, Union River, Skokomish River, Mission, Dewatto, Little Dewatto, Rendsland, Tahuya ,and other creeks.
Time Period(s):	August, 1990, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	2X's in dry season. 4X's in wet season. Intensive sampling during storm event once per year.
Continued Collection:	Yes, contingent on future funding.

Acquired From:	Mason County Water Quality Program P.O. Box 186 Shelton, Washington 98584 Wayne Clifford (206) 427-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Allyn, South Puget Sound, North Bay Watershed, Sherwood, Coulter, and other creeks and drainages.
Time Period(s):	August, 1990, to September, 1991.
Data Organization:	
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	2X's in dry season. 4X's in wet season. Intensive sampling during storm event once per year.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Mason County Water Quality Program P.O. Box 186 Shelton, Washington 98584 Wayne Clifford (206) 427-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Shelton, South Puget Sound, Oakland Bay Watershed, Goldsborough, Shelton, Campbell, Deer, Cranberry, Uncle John's, Malaney, and Coffee Creeks.
Time Period(s):	January, 1988, to March, 1989. April, 1990, to September, 1991.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.

Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season, 4X's in wet season. Intensive sampling during storm event once per year.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Mason County Water Quality Program P.O. Box 186 Shelton, Washington 98584 Wayne Clifford (206) 427-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	Yes, due to different agencies, different laboratories.

Department of Ecology (044)

Geographic Area(s):	Lacey, South Puget Sound, Henderson Inlet Watershed, Woodland Creek, Woodard Creek, and others.
Time Period(s):	August, 1983, to August, 1984. January, 1988, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season, 4X's in wet season.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Thurston County Health Department 2000 Lakeridge Drive Olympia, Washington 98502 Linda Hofstadt (206) 754-4111.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Olympia, South Puget Sound, Eld Inlet Watershed, McLane, Perry, Evergreen, Madrona, Tunnel, Simmons, Surprise, Houston, and Green Cove Creeks.
Time Period(s):	August, 1983, to August, 1984. January, 1988, to present.
Data Organization:	Tabular.

Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season, 4X's in wet season.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Thurston County Health Department 2000 Lakeridge Drive Olympia, Washington 98502 Linda Hofstadt (206) 754-4111.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Olympia, Shelton, South Puget Sound, Totten-Skookum Inlet Watershed, Kennedy, Schneider, Burns, Pierre, Yellow Rock, and Little Skookum Creeks.
Time Period(s):	August, 1984, to September, 1985. January, 1988, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season and 4X's in wet season.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Totten Inlet: Thurston County Health Department 2000 Lakeridge Drive Olympia Washington 98502 Linda Hofstadt (206) 754-4111. Skookum Inlet: Mason County Department of Health P.O. Box 186 Shelton Washington 98584 Wayne Clifford (206) 426-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.

Accuracy Variation:

Department of Ecology (044)

Geographic Area(s):	Purdy, South Puget Sound, Minter Bay Watershed-Minter, Little Minter and Huge Creek. Burley Lagood Watershed-Bear, Burley, and Purdy Creeks.
Time Period(s):	January, 1983, to December, 1983. January, 1989, to December, 1989.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: 2X's per month. Period 2: 1X per month.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Bremerton-Kitsap County Health Department 109 Austin Drive Bremerton Washington 98312 Keith Grellner (206) 478-5285.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	Two separate agencies, different laboratories, different time periods.

Department of Ecology (044)

Geographic Area(s):	La Conner, Smilt-Kiket Bays Watershed streams and drains.
Time Period(s):	January, 1992, to present.
Data Organization:	Tabular and Spatial. Consult contact person for details on spatial.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Monthly. Wet and dry season sampling of stream, drains and seeps.
Continued Collection:	Unknown.
Acquired From:	Swinomish Indian Tribal Community P.O. Box 817 950 Moorage Way

La Conner Washington 98257
Ed Knight (206) 466-3163.

Data Alteration:
Additional Data Plans:
Data Accuracy:
Accuracy Variation:

Department of Natural Resources (034)

Geographic Area(s):	Estuary, Puget Sound; Nearshore Habitat Inventory and Environmental Atlas.
Time Period(s):	Nearshore Habitat Inventory for 1988 to 1992. Environmental Atlas for 1991 to 1992.
Data Organization:	Tabular and Spatial. Nearshore Habitat Inventory from remote sensing by aircraft mounted scanner with Global Positioning Systems on board. Environmental Atlas from manual mapping and digitizing with field experts.
Units of Measurement:	Nearshore Habitat Inventory to 15 meters. Environmental Atlas between 15 and 100 meters.
Reference Method(s):	Universal Transverse Mercator, North American Datum 1983 and North American Datum 1927.
Unique Identifier(s):	By names for bays, coves, harbors, inlets, beaches etc.
Collected or Acquired:	Collected.
Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	85%.
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Nationwide.
Time Period(s):	All.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	All types. Varies widely with media and analysis methodology. Latitude / Longitude as well.
Unique Identifier(s):	Primary street identification number and common "resource" name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.

Acquired From:	U.S. Geological Survey, Department of Ecology, U.S. Bureau of Reclamation, Department of Social and Health Services.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50 to 90%.
Accuracy Variation:	

Pierce County (028)

Geographic Area(s):	Pierce, Minter Watershed, Burley Watershed, and Mayo Cove Watershed.
Time Period(s):	Mayo Cove February, 1989, to September, 1990. Burley Watershed January, 1989, to January, 1990. Minter Watershed January, 1989, to January, 1990.
Data Organization:	Tabular.
Units of Measurement:	Temperature +/- 1 degree Celsius. Fecal Coliform 1 /100milliliter. Organic ms/100 milliliter. Salinity of marine water 0.1 parts per thousand. pH 0.1. Conductivity 1 micromhos/centimeter. Stream Flow 0.1 cubic feet per second.
Reference Method(s):	U.S. Geological Survey Maps.
Unique Identifier(s):	Separate Data Bases for each area.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Bi-monthly and Rain Event Driven.
Continued Collection:	
Acquired From:	Marine water data from Department of Health. Kitsap County area data from Bremerton-Kitsap County Health Department.
Data Alteration:	
Additional Data Plans:	Possibly Rocky Bay and the associated watershed if funding is available.
Data Accuracy:	90%.
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. This is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	

Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on gauge converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

U.S. Geological Survey (037)

Estuarine data are collected by the U.S. Geological Survey for individual projects only. These projects include the analysis and modeling of transport processes and water quality studies. Water quality data are maintained in the National Water Information System database.

Additional data regarding estuaries are maintained by the National Oceanic and Atmospheric Administration, the Washington Department of Ecology, and Western Washington University's Environmental Science Department. Frederic H. Nichols, Oceanographer with the U.S. Geological Survey research program in Menlo Park, California, (415) 354-3218, has collected benthic invertebrates in Puget Sound semi-annually for the past 20 years.

Geographic Locators Data Subject Area

The Geographic Locator Data Subject Area includes any data pertaining to the details of a Geographic Locator or locations based on Geographic Locators.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Tabular and spatial.
Units of Measurement:	Quarter / quarter quarter Section.
Reference Method(s):	All are used.
Unique Identifier(s):	All are used.
Collected or Acquired:	Acquired.
Collection Frequency:	
Continued Collection:	
Acquired From:	Historical data from resident knowledge.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Spatial from Public Land Survey and orthophotos.
Units of Measurement:	
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Variable.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (034)

Geographic Area(s):	Puget Sound.
Time Period(s):	May, 1991, to October, 1991. May, 1992, to October, 1992.
Data Organization:	Spatial from Global Positioning Systems surveys.
Units of Measurement:	+/- 5 meters.

Reference Method(s):	Global Positioning Systems can convert to several referencing systems. We use meters and Latitude / Longitude. We also use both North American Datum 1927 and North American Datum 1983.
Unique Identifier(s):	By names for bays, coves, harbors, inlets, beaches etc.
Collected or Acquired:	Collected.
Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	99%.
Accuracy Variation:	

Pierce County (029)

Geographic Area(s):	Tacoma, Clover Chambers Creek, Gig Harbor, and Peninsula Basins.
Time Period(s):	1980 to Present.
Data Organization:	Tabular.
Units of Measurement:	Well location in meters Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for Public Water Systems, Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

Seattle-King County (035)

Geographic Area(s):	Redmond-Bear Creek Groundwater Management Area. Issaquah Creek Valley Groundwater Management Area. Vashon-Maury Island Groundwater Management Area. South King County Groundwater Management Area.

	East King County Groundwater Management Area.
Time Period(s):	
Data Organization:	Tabular.
Units of Measurement:	1 second, location determined by map. 0.01 second, location determined by survey. 1 second Latitude / Longitude, location determined by map. 0.01 second Latitude / Longitude, location determined by survey. 1 second Lambert, location determined by map. 0.01 second Lambert, location determined by survey.
Reference Method(s):	Map location for most sites. Field survey for monitoring network sites.
Unique Identifier(s):	U.S. Geological Survey Identification Number. Township / Range / Section.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	As new well logs are submitted to Seattle-King County Health by Department of Ecology.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey.
Data Alteration:	
Additional Data Plans:	King County parcel numbers will be added to the database.
Accuracy:	80%.
Accuracy Variation:	

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hydropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.

Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Geological Survey (037)

The Latitude / Longitude system is used by the U.S. Geological Survey for all data collection sites. Latitude / Longitude are required entries in the National Water Information System database. Wells and springs are assigned a unique identification number based on the Latitude / Longitude system.

The Public Land Survey System is used by the U.S. Geological Survey to identify wells and springs. The local well and spring number assigned by the U.S. Geological Survey is based on the Public Land Survey System.

The State Plane Coordinate System and the Universal Transverse Mercator System are used interchangeably for individual studies that use a Geographic Information System.

Ground Water Data Subject Area

The Ground Water Data Subject Area includes any data pertaining to the location, identification, description, quantity, quality, or use of ground water.

Department of Ecology (038)

See description for ground water data in reference.

Ground Water Descriptive Data Subject Group

Any location, identification, or description data about ground water, or other data about ground water that do not fit into the other data subject groups.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	
Units of Measurement:	
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	
Collection Frequency:	
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Pierce County (029)

Geographic Area(s):	Tacoma, Clover Chambers Creek, and Gig Harbor Peninsula Basins.
Time Period(s):	1980 to Present.
Data Organization:	Tabular.
Units of Measurement:	Well location in meters. Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address
Unique Identifier(s):	A State Identification Number for Public Water Systems, Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.

Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	Yes.

Seattle-King County (035)

Geographic Area(s):	Redmond-Bear Creek Groundwater Management Area. Issaquah Creek Valley Groundwater Management Area. Vashon-Maury Island Groundwater Management Area. South King County Groundwater Management Area. East King County Groundwater Management Area.
Time Period(s):	
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	Township / Range / Section / sixteenth Section. Latitude / Longitude. Lambert.
Unique Identifier(s):	U.S. Geological Survey Identification Number. Township / Range / Section.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	As new well logs are submitted to Seattle-King County Health by Department of Ecology.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey.
Data Alteration:	
Additional Data Plans:	King County parcel numbers will be added to the database.
Accuracy:	80%.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Issaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Tuck Creek, Walsh Lake Diversion Creek, Cedar River and Judd Creek.

Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular and spatial for well boring logs-hydrogeology.
Units of Measurement:	Boring logs in feet.
Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	MW numbers.
Collected or Acquired:	Collected
Collection Frequency:	At time of well installation.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will add groundwater descriptive data, as wells are constructed.
Data Accuracy:	95%.
Accuracy Variation:	Quality is stable.

U.S. Geological Survey (037)

Ground-water data are collected by the U.S. Geological Survey and maintained in the National Water Information System database by a unique identifier based on Latitude / Longitude. In addition, a local number based on the Public Land Survey System is also used to identify the locations of ground-water data.

Ground Water Quality Data Subject Group

The condition of ground water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and the water quality history, patterns, trends, and changes.

Department of Ecology (002)

Geographic Area(s):	Anybody with a permit. Water body names for watersheds. Water body numbers for specific segments of streams. Statewide.
Time Period(s):	1989 to 1992.
Data Organization:	Tabular.
Units of Measurement:	Varies and we don't have a Quality Assurance / Quality Control program in place.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Water body numbers.
Collected or Acquired:	Both. Monthly submittals are reentered into our computer system.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Facilities with Permits.
Data Alteration:	Might correct obvious errors in reporting.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Pierce County (029)

Geographic Area(s):	Tacoma, and incorporated cities and towns in Pierce County.
Time Period(s):	1984 to present.
Data Organization:	Tabular.
Units of Measurement:	Well location in meters Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems. Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.

Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

Seattle-King County (035)

Geographic Area(s):	Redmond-Bear Creek Groundwater Management Area. Issaquah Creek Valley Groundwater Management Area. Vashon-Maury Island Groundwater Management Area. South King County Groundwater Management Area. East King County Groundwater Management Area. Physical parameters, bacteriological, inorganic parameters, priority pollutant metals, volatile organics, semi-volatile organics, pesticides and PCB's.
Time Period(s):	December, 1989, and May, 1990, for Redmond Groundwater Management Program. March, June, and December, 1990, for Issaquah Groundwater Management Program. August, 1990, and April, 1991, for South King County Groundwater Management Program. October, 1989, April and October, 1990, for Vashon Groundwater Management Program.
Data Organization:	Tabular.
Units of Measurement:	1 to .0002 milligrams/liter. 10 to 1 micrograms/liter.
Reference Method(s):	Township / Range / Section / sixteenth Section. Latitude / Longitude. Lambert.
Unique Identifier(s):	U.S. Geological Survey Identification Number. Township / Range / Section.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	By project.

Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey.
Data Alteration:	
Additional Data Plans:	
Accuracy:	99%.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Tuck Creek, Walsh Lake Diversion Creek, and Cedar River.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	0.1 to 0.001 milligrams/liter, micrograms/liter, micromhos/centimeter, cubic feet per second, etc.
Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	MW numbers.
Collected or Acquired:	Collected.
Collection Frequency:	Daily to annually.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will add data as monitoring wells are constructed.
Data Accuracy:	95%.
Accuracy Variation:	No quality changes.

Seneca Food Corporation (020)

Geographic Area(s):	Lower Yakima River Basin.
Time Period(s):	May, 1990, to present.
Data Organization:	Tabular.
Units of Measurement:	milligrams/liter.
Reference Method(s):	
Unique Identifier(s):	Wells on Seneca property.
Collected or Acquired:	Collected.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.

Accuracy Variation:

U.S. Geological Survey (037)

Ground-water quality data are collected by the U.S. Geological Survey and maintained in the National Water Information System database. Ground-water quality data are usually collected for a limited period of time for a specific study.

University of Washington (033)

Geographic Area(s):	Kitsap, Western Washington, Big Beef.
Time Period(s):	February, 1987, to present.
Data Organization:	Spatial from field sampling.
Units of Measurement:	Bacterial in Colony units. Chemical in parts per million.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	Periodic every five years.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Ground Water Quantity Data Subject Group

Any data pertaining to the capacity, flow and volume, or the history, patterns, trends, and changes of those data for any ground water. Ground water quantity data show the supply of ground water, including artificial recharge of ground water.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1971 to present.
Data Organization:	Tabular.
Units of Measurement:	0.01 to 1.0 feet depending on method for water levels.
Reference Method(s):	Quarter quarter Section and owner.
Unique Identifier(s):	
Collected or Acquired:	On well reports.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Nationwide.
Time Period(s):	All.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	All types. Varies widely with media and analysis methodology. Latitude / Longitude as well.
Unique Identifier(s):	Primary street identification number and common "resource" name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey, Department of Ecology, U.S. Bureau of Reclamation, Department of Social and Health Services.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50 to 90%.
Accuracy Variation:	

King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Tuck Creek, Walsh Lake Diversion Creek, and Cedar River.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	0.1 foot.
Reference Method(s):	State Plane Coordinates, Public Land Survey.
Unique Identifier(s):	MW numbers.
Collected or Acquired:	Collected.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will add data as wells are constructed.
Data Accuracy:	95%.
Accuracy Variation:	No quality changes.

Pierce County(029)

Geographic Area(s):	Pierce County; Clover Chambers Creek, and Gig Harbor Peninsula Basin.
Time Period(s):	1984 to present.
Data Organization:	Tabular.
Units of Measurement:	Well location in meters Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems, atitude, Latitude / Longitude, Street Address, Parcel Number
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.

Accuracy Variation:	Yes.

Seneca Food Corporation (020)

Geographic Area(s):	Lower Yakima River Valley.
Time Period(s):	May, 1990, to present.
Data Organization:	Tabular.
Units of Measurement:	Feet.
Reference Method(s):	
Unique Identifier(s):	Number of wells on Seneca property.
Collected or Acquired:	Collected.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	

U.S. Army Corps of Engineers (018)

Geographic Area(s):	Southeast Washington for Mill Creek Lake Project.
Time Period(s):	Early 1960 to present.
Data Organization:	Tabular.
Units of Measurement:	Tape measure to nearest inch.
Reference Method(s):	State Plane Coordinates, Public Land Survey.
Unique Identifier(s):	U.S. Geological Survey name.
Collected or Acquired:	Collected.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

U.S. Geological Survey (037)

Parameters associated with ground-water quantity are maintained in the National Water Information System database. Examples include well yield, hydraulic conductivity, transmissivity, lithologic units, and aquifer designations. These parameters are considered interpretive, however, and can only be shared with the public if they have been published.

Ground Water Use Data Subject Group

Any data pertaining to the use of ground water in place below the earth's surface, or the collective or summarized use of ground water, but excludes the specific use of ground water. The specific uses are included in the method of withdraw, such as Water Wells, Springs, and Water Systems.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	
Units of Measurement:	
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	
Collection Frequency:	
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	Data is sometimes interpreted using computer modeling techniques.

Pierce County (029)

Geographic Area(s):	Pierce County; Clover Chambers Creek, and Gig Harbor Peninsula Basin.
Time Period(s):	1984 to present.
Data Organization:	Tabular.
Units of Measurement:	Well location in meters Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems, Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	

Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

U.S. Geological Survey (037)

Ground-water use data are maintained in the National Water Information System database. Some of these data are collected by U.S. Geological Survey personnel for a limited period of time for a specific study, while more continuous data are obtained from other sources such as the Washington State Department of Health and the Washington State University Irrigated Agriculture Research Station (Thomas W. Ley, at (509) 786-2226).

Hydropower Data Subject Area

The Hydropower Site Data Subject Area includes any data pertaining to the identification, location, description, and any other characteristics of a hydropower site, excluding information about dams that produce hydropower and reservoirs behind those dams.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	
Continued Collection:	Bonneville Power Administration and Washington State Energy Office.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Fisheries (009)

Geographic Area(s):	Statewide by river basin stream names for all sites filed by project applicant.
Time Period(s):	Beginning of hydropower development to Present.
Data Organization:	Tabular.
Units of Measurement:	River mile.
Reference Method(s):	Stream river mile.
Unique Identifier(s):	Stream name, Water Resource Inventory Area number, Federal Energy Regulatory Commission number, Environmental Protection Agency reach number.
Collected or Acquired:	Collected.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide for river flow data and legal data. Nationwide for reports.
Time Period(s):	Reports 1973 through 1992. River flow data to publication of first Guide Books.
Data Organization:	Tabular and spatial. For Guide Books visual observations by boaters and U.S. Geological Survey guage readings where available.
Units of Measurement:	Cubic feet per second, gradient in feet per mile, and feet and inches on guage which is converted from a table to cubic feet per second.
Reference Method(s):	Number on gauging station for flow data. River stretches by river name and geographical features that define the start and end of a stretch.
Unique Identifier(s):	Name of river from a map. The stretch is identified by names of geographic features and sometime by names given by recreationalists.
Collected or Acquired:	Both.
Collection Frequency:	Data collected by boaters to satisfy needs of Guide Books. Data have been collected on Trip Reports.
Continued Collection:	Yes.
Acquired From:	Washington Kayak Club, Paddle Trails Canoe Club, Washington River Rafers Club.
Data Alteration:	None.
Additional Data Plans:	Data could be collected from Whatcom County, Spokane Kayak and Canoe Club, Puget Sound Paddle Club, Boeing White Water Club, Desert Rats Kayak Club in Ellensburg.
Data Accuracy:	80%.
Accuracy Variation:	Yes. U.S. Geological Survey gauging stations are subject to damage. Also, the gauging stations are too few and are not always located to reflect correct flow in a particular stretch of river.

U.S. Geological Survey (037)

The U.S. Geological Survey maintains location information for hydropower sites in its database. Only limited information on other characteristics is available for hydropower sites. Owners of the hydropower sites should be consulted for this information.

Lake Data Subject Area

The Lake Data Subject Area includes any data pertaining to the identification, location, description, quantity, quality, or use of lake water.

Lake Descriptive Data Subject Group

Any location, identification, or description data about a lake, or other data about lakes that do not fit into the other data subject groups.

Department of Natural Resources (030)

Geographic Area(s):	State, private and some Federal and Tribal forest lands.
Time Period(s):	
Data Organization:	Spatial from U.S. Geological Survey 7.5 minute Quadrangles. Updated through additional sources.
Units of Measurement:	
Reference Method(s):	Geographic Information System base is State Plane Coordinates.
Unique Identifier(s):	Water body identification, unique statewide.
Collected or Acquired:	Collected from updates. Acquired from 7.5 minute Quadrangles.
Collection Frequency:	Updated as required.
Continued Collection:	Yes.
Acquired From:	Original map data from U.S. Geological Survey.
Data Alteration:	Digitalization by hand and scanning.
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

U.S. Geological Survey (037)

Lake data are collected by the U.S. Geological Survey and maintained in the National Water Information System database. Some lakes are monitored on a continuous basis, while others are studied for a short period of time.

Lake Quality Data Subject Group

The condition of lake water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and quality history, patterns, trends, and changes.

Department of Ecology (002)

Geographic Area(s):	Anybody with a permit. Water body names for watersheds. Water body numbers for specific segments of streams. Statewide.
Time Period(s):	1989 to 1992.
Data Organization:	Tabular.
Units of Measurement:	Varies and we don't have a Quality Assurance / Quality Control program in place.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Water Body Numbers.
Collected or Acquired:	Both. Monthly submittals are re-entered into our computer system.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Facilities with Permits.
Data Alteration:	Might correct obvious errors in reporting.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Nationwide.
Time Period(s):	All.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	All types. Varies widely with media and analysis methodology. Latitude / Longitude as well.
Unique Identifier(s):	Primary street identification number and common "resource" name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.

Acquired From:	U.S. Geological Survey, Department of Ecology, U.S. Bureau of Reclamation, Department of Social and Health Services.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50 to 90%.
Accuracy Variation:	

Pierce County (028)

Geographic Area(s):	Pierce County; American Lake, Clear Lake.
Time Period(s):	Clear Lake March, 1991, to February, 1992. American Lake March, 1991, to April, 1992.
Data Organization:	Tabular.
Units of Measurement:	1 degree Celsius. 0.1 pH. 1 ms/centimeter ms/centimeter. 0.1 parts per million dissolved oxygen. 0.01 Nephelometer Turbidity Unit. 1 milligrams/liter (TP,SRP,TN,NH3,NO2,+NO3). 0.1 milligrams/liter of chlorophyll.
Reference Method(s):	U.S. Geological Survey Maps, Public Land Survey.
Unique Identifier(s):	Separate data basis for each lake.
Collected or Acquired	Collected and acquired.
Collection Frequency:	Monthly or bi-weekly.
Continued Collection:	
Acquired From:	American Lake Data collected by the consulting firm KCM, Inc.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	90%.
Accuracy Variation:	

Thurston County Public Health (005)

Geographic Area(s):	Thurston County. Southern Puget Sound Region. Long Lake, Patterson Lake, Black Lake, Lawrence Lake, Offut Lake, Summit Lake, Hewitt Lake, Ward Lake, Chambers Lake, and Lake St. Clair.
Time Period(s):	May, 1988, to present for Long Lake, Patterson Lake, and Lawrence Lake. May, 1990, to present for Offut Lake.

	July, 1990, to present for Summit Lake. June, 1992 to present for Black Lake, and Lake St. Clair. February, 1992, to present for Hewitt Lake, Ward Lake, and Chambers Lake.
Data Organization:	Tabular.
Units of Measurement:	.001 milligrams/liter. .00 meters. 0.00 pH units. 00.000 millimhos. Nearest whole number for organisms / 100 milliliter.
Reference Method(s):	County Map with Section, Township, and Range.
Unique Identifier(s):	Name.
Collected or Acquired:	Both.
Collection Frequency:	Seasonally for May to October. Monthly for December and February.
Continued Collection:	No.
Acquired From:	Department of Ecology. Consultants. Citizen volunteer monitoring groups.
Data Alteration:	No.
Additional Data Plans:	Unknown.
Data Accuracy:	75%.
Accuracy Variation:	Yes, some sampling techniques and lab detection limits have been improved since 1989.

U.S. Geological Survey (037)

Water-quality information for lakes is collected by the U.S. Geological Survey and maintained in the National Water Information System database. Water - quality data are collected for limited periods of time for specific studies only.

University of Washington (033)

Geographic Area(s):	Seattle, King County, and Lake Union.
Time Period(s):	June, 1988, to present.
Data Organization:	Tabular.
Units of Measurement:	Temperature in degrees Farenheit.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	

Data Alteration:
Additional Data Plans:
Data Accuracy: 100%.
Accuracy Variation:

Lake Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns, trends, or changes of those data for any lake. Lake quantity data represent the water supply in a lake. Monitoring stations are included as lake quantity data.

Pierce County (028)

Geographic Area(s):	Pierce County; American Lake, and Clear Lake.
Time Period(s):	Clear Lake March, 1991, to February, 1992. American Lake March, 1991, to April, 1992.
Data Organization:	Tabular.
Units of Measurement:	1 degree Celsius. 0.1 pH. 1 ms/centimeter. 0.1 part per million dissolved oxygen. 0.01 Nephelometer Turbidity Unit. 1 milligrams/liter (TP,SRP,TN,NH3,NO2,+NO3). 0.1 milligrams/liter (Chlorophyll).
Reference Method(s):	U.S. Geological Survey Maps, Public Land Survey.
Unique Identifier(s):	Separate data basis for each lake.
Collected or Acquired	Collected and acquired.
Collection Frequency:	Monthly or bi-weekly.
Continued Collection:	
Acquired From:	American Lake Data collected by the consulting firm KCM, Inc.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	90%.
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. This is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as

	conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. Surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

U.S. Geological Survey (037)

Water-quantity information for lakes is collected throughout the State. Some lakes are monitored on a continuous basis, while others are monitored for the duration of specific study only. The collected data are maintained in the National Water Information System database.

Lake Resource Data Subject Group

Any biological, physical, or chemical resource that exists in a lake or has a high dependency on a lake.

U.S. Geological Survey (037)

Lake resource information is available for selected lakes in published U.S. Geological Survey reports only.

Lake Use Data Subject Group

The use of water in a lake or removed from a lake. Lake use data include points of diversion, quantities, frequency, duration, and points of return, and any quality changes resulting from use. Lake water use data do not include data about Water Systems or the specific off-body use of water, but include summarized data about off-body water use.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Tabular.
Units of Measurement:	+/- 0.1 cubic feet per second.
Reference Method(s):	Quarter quarter Section and owner.
Unique Identifier(s):	Water right application number.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	

Pierce County (028)

Geographic Area(s):	Pierce County; American Lake, and Clear Lake.
Time Period(s):	Clear Lake March, 1991, to February, 1992. American Lake March, 1991, to April, 1992.
Data Organization:	Tabular.
Units of Measurement:	1 degree Celsius. 0.1 pH. 1 ms/centimeter. 0.1 parts per million dissolved oxygen. 0.01 Nephelometer Turbidity Unit. 1 milligrams/liter (TP,SRP,TN,NH3,NO2,+NO3). 0.1 milligrams/liter for chlorophyll.
Reference Method(s):	U.S. Geological Survey Maps, Public Land Survey.
Unique Identifier(s):	Separate data basis for each lake.
Collected or Acquired	Collected and acquired.
Collection Frequency:	Monthly or bi-weekly.
Continued Collection:	

Acquired From:	American Lake data collected by the consulting firm KCM, Inc.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	90%.
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. This is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. Surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

U.S. Geological Survey (037)

Lake water-use data are maintained in the National Water Information System database. Some of these data are collected by U.S. Geological Survey personnel for a limited period of time for a specific study, while more continuous data are obtained from other sources such as the Washington State Department of Health and the Washington State University Irrigated Agriculture Research Station, Thomas W. Ley, at (509) 786-2226. Irrigation water-use data are not identified by surface-water type.

Land Parcel Data Subject Area

The Land Parcel Data Subject Area includes any data pertaining to the identification, description, location, and use of land parcels.

Land Parcel Descriptive Data Subject Group

Any data pertaining to the identification, location, description, or ownership of land parcels, or other data about land parcels that do not fit into the other data subject groups.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	
Units of Measurement:	
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	
Collection Frequency:	
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (034)

Geographic Area(s):	Statewide.
Time Period(s):	Statehood to present.
Data Organization:	
Units of Measurement:	
Reference Method(s):	Survey reports and legal descriptions.
Unique Identifier(s):	Names.
Collected or Acquired:	Collected.
Collection Frequency:	Hourly.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will convert manual mapping to Geographic Information System formats.
Data Accuracy:	60%.
Accuracy Variation:	Obviously.

Pierce County (029)

Geographic Area(s):	Tacoma, and incorporated cities and towns in Pierce County.
Time Period(s):	1984 to present.
Data Organization:	Tabular.
Units of Measurement:	**Well location in** meters Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems. Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. This is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second.

	No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. Surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Land Parcel Use Data Subject Group

Any data pertaining to the use of land parcels, including detailed uses of a land parcel, summary data about land parcels collectively, and land use classification schemes.

Department of Ecology (015)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Spatial.
Units of Measurement:	
Reference Method(s):	Card catalog.
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	
Continued Collection:	
Acquired From:	Counties and Department of Natural Resources.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	75%.
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Tabular and spatial from field survey and imagery.
Units of Measurement:	
Reference Method(s):	Geographic Information System base is State Plane Coordinates. Other tabular system is Public Land Survey.
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (034)

Geographic Area(s):	Statewide.
Time Period(s):	Statehood to present.

Data Organization:	
Units of Measurement:	
Reference Method(s):	Survey reports and legal descriptions.
Unique Identifier(s):	Names.
Collected or Acquired:	Collected.
Collection Frequency:	
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	Manually maintained maps will be put into Geographic Information System formats.
Data Accuracy:	60%.
Accuracy Variation:	Obviously.

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. Tis on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. Surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	

Additional Data Plans:
Data Accuracy:
Accuracy Variation:

Marsh/Swamp/Bog Data Subject Area

The Marsh/Swamp/Bog data subject area includes any data pertaining to the identification, location, description, quantity, quality, or use of these palustrine areas.

Department of Ecology (026)

Geographic Area(s):	Marshal River Basin in Pierce County.
Time Period(s):	
Data Organization:	Tabular and Spatial.
Units of Measurement:	
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	State, private, Federal and Tribal forest lands.
Time Period(s):	
Data Organization:	Spatial from U.S. Geological Survey Quadrangles at different scales plus update information from aerial imagery and field surveys.
Units of Measurement:	
Reference Method(s):	Geographic Information System base is State Plane Coordinates.
Unique Identifier(s):	
Collected or Acquired:	Collected and acquired.
Collection Frequency:	
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

U.S. Geological Survey (037)

The U.S. Geological Survey collects and maintains limited marsh, swamp, and bog data that are available through published reports and the National Water Information System database.

University of Washington (033)

Geographic Area(s):	Seattle, King County, and Montlake Wetlands.
Time Period(s):	March, 1965, to June, 1966. March, 1970, to March, 1970. November, 1976, to November, 1976. October, 1980, to October, 1980. July, 1984, to July, 1984.
Data Organization:	Spatial from field surveys.
Units of Measurement:	Parts per million.
Reference Method(s):	Public Land Survey.
Unique Identifier(s):	
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Every few years.
Continued Collection:	Yes.
Acquired From:	Consultants.
Data Alteration:	
Additional Data Plans:	Department of Ecology, Seattle-King County Health Department.
Data Accuracy:	90%.
Accuracy Variation:	Little variance.

Ocean Data Subject Area

The Ocean Data Subject Area includes any data pertaining to the location, identification, description, quantity, quality, or use of oceans.

Department of Natural Resources (030)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Tabular and spatial.
Units of Measurement:	
Reference Method(s):	Geographic Information System base is State Plane Coordinates. Other reference methods are used such as protracted Public Land Survey.
Unique Identifier(s):	Many.
Collected or Acquired:	Collected.
Collection Frequency:	
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (034)

Geographic Area(s):	Clallam, Jefferson and Grays Harbor kelp inventory. Statewide bathymetry.
Time Period(s):	Kelp inventoryfrom summer 1989 to summer 1990. Bathymetry from 1930 to 1989.
Data Organization:	Spatial for Kelp inventory from remote sensing by custom contract; aerial survey, and manual digitizing. Bathymetry from hydrographic surveys and field surveys.
Units of Measurement:	Kelp inventory within 5 meters. Bathymetry resolution is not generally applicable to point data. Location accuracy is thought to be +/- 5 meters horizontal. Vertical units vary in row data. We standardize to feet.
Reference Method(s):	Kelp inventory data is in ARC/INFO, currently stored in Universal Transverse Mercator Zone 10 North American Datum 1927. Bathymetry by Latitude / Longitude and State Plane Coordinates, depending on vicinity, North American Datum 1927.
Unique Identifier(s):	

Collected or Acquired:	Acquired.
Collection Frequency:	
Continued Collection:	
Acquired From:	Kelp inventory through Coastal Zone Management Program at Department of Ecology. Contract to ECOSCAN. ECOSCAN provides rough digitized boundaries with 1 attribute. We convert into ARC/INFO, join tiles to make continuous coverage, edit and build polygon topology and associate original attribute. Bathymetry through National Oceanic and Atmospheric Administration, National Ocean Service. Raw data is parsed for key elements, which are processed by ARC/INFO routines to provide surface model of bottom.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	Kelp inventory is 90%. Bathymetry is 75%.
Accuracy Variation:	1989 kelp inventory data does not have attributes. Earlier bathymetry data may not reflect current conditions in dynamic areas.

Environmental Protection Agency (016)

Geographic Area(s):	Nationwide.
Time Period(s):	All.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	All types. Varies widely with media and analysis methodology. Latitude / Longitude as well.
Unique Identifier(s):	Primary street identification number and common "resource" name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey, Department of Ecology, U.S. Bureau of Reclamation, Department of Social and Health Services.
Data Alteration:	
Additional Data Plans:	U.S. Geological Survey Tacoma and Portland Water Resource Division, Department of Ecology Water Quality Division.
Data Accuracy:	50 to 90%.
Accuracy Variation:	

U.S. Geological Survey (037)

The Water Resources Division of the U.S. Geological Survey does not maintain oceanographic information. The best source for oceanographic data is probably National Oceanic and Atmospheric Administration and universities with oceanography departments such as the University of Washington and Oregon State University.

Reservoir Data Subject Area

The Reservoir Data Subject Area includes any data pertaining to the identification, location, description, quantity, quality, or use of reservoir water.

Reservoir Descriptive Data Subject Group

Any location, identification, or description data about a reservoir, or other data about reservoirs that do not fit into the other data subject groups.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Tabular,
Units of Measurement:	Acrefeet.
Reference Method(s):	Quarter quarter Section.
Unique Identifier(s):	Reservoir application number.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	State, private, Federal and Tribal forest lands.
Time Period(s):	
Data Organization:	Spatial from U.S. Geological Survey Quadrangles at differing scales, plus update information from imagery and field surveys.
Units of Measurement:	
Reference Method(s):	Geographic Information System base is State Plane Coordinates.
Unique Identifier(s):	Water body identifier.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Variable.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. This is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. Surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hydropower project data archived back to 1960.
Data Organization:	Tabular.

Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Armu Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Geological Survey (037)

The U.S. Geological Survey collects and maintains data at most reservoirs in Washington State. These data are kept in the National Water Information System database.

Reservoir Quality Data Subject Group

The condition of reservoir water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and quality history, patterns, trends, and changes.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	Current.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	Township / Range / Section, Latitude / Longitude.
Unique Identifier(s):	
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	100%.
Accuracy Variation:	

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hysropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.

Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Geological Survey (037)

Water-quality data are collected by the U.S. Geological Survey and maintained in the National Water Information System database. Water-quality data are usually gathered for a limited period of time for a specific study. Continuous data are available for selected reservoirs.

Reservoir Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns, trends, or changes of those data for any reservoir. Reservoir quantity data represent the water supply in a reservoir. Monitoring stations are included as reservoir quantity data.

Department of Ecology (019)

Geographic Area(s):	
Time Period(s):	
Data Organization:	Tabular.
Units of Measurement:	+/- 1 Acrefeet. +/- 0.1 Acres of surface area.
Reference Method(s):	Township / Range / Section.
Unique Identifier(s):	By property name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	Drainage basin areas upstream of a dam.
Data Accuracy:	80%.
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Nationwide.
Time Period(s):	All.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	All types. Varies widely with media and analysis method. Latitude / Longitude as well.
Unique Identifier(s):	Primary street identification number and common "resource" name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey, Department of Ecology, U.S. Bureau of Reclamation, Department of Social and Health Services.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50 to 90%.
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. This is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. Surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hydropower project data archived back to 1960.
Data Organization:	Tabular.

Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Army Corps of Engineers (018)

Geographic Area(s):	Southeast Washington for Mill Creek Lake Project.
Time Period(s):	Early 1960 to present.
Data Organization:	Tabular.
Units of Measurement:	Reservoir gauge to nearest one-tenth of foot above sea level.
Reference Method(s):	State Plane Coordinates, Public Land Survey.
Unique Identifier(s):	U.S. Geological Survey name.
Collected or Acquired:	Collected.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	

Data Accuracy: 100%.
Accuracy Variation:

U.S. Geological Survey (037)

The U.S. Geological Survey maintains reservoir quantity data in the National Water Information System database for most reservoirs in Washington State. The data consist of stage or content measurements that are collected by either the U.S. Geological Survey or the entities operating the reservoirs, such as the U.S. Army Corps of Engineers, the Bonneville Power Administration, and the Tacoma City Light and Water Departments. Continuous data are available at selected reservoirs.

Reservoir Resource Data Subject Group

Any biological, physical, or chemical resource that exists in a reservoir or has a high dependency on a reservoir.

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hysropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

Reservoir Use Data Subject Group

The use of water in a reservoir or removed from a reservoir. Reservoir use data include points of diversion, quantities, frequency, duration, points or return, and any quality changes resulting from use. Reservoir use data do not include data about Water Systems or the specific off-body use of water, but include summarized data about off-body water use.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	Current.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	Township / Range / Section, Latitude / Longitude.
Unique Identifier(s):	
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	100%.
Accuracy Variation:	

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hydropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.

Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Geological Survey (037)

Reservoir water-use data are maintained in the National Water Information System database. Some of these data are collected by U.S. Geological Survey personnel for a limited period of time for a specific study, while more continuous data are obtained from other sources such as the Washington State Department of Health and the Washington State University Irrigated Agriculture Research Station (Thomas W. Ley, at (509) 786-2226). Irrigation water-use data are not identified by surface-water type.

The U.S. Geological Survey maintains power generation data in the National Wetland Inventory System database for reservoirs with hydroelectric dams. These data are obtained from the Energy Information Administration of the U.S. Department of Energy. The U.S. Geological Survey estimates the amount of water required to produce the reported power.

Snow Pack Data Subject Area

The Snow Pack Data Subject Area includes any data pertaining to the identification, location, description, quantity, quality, or use of snow.

Soil Conservation Service (042)

See description of Snow Pack data contained in reference 042.

Snow Pack Descriptive Data Subject Group

Any location, identification, or description data about snow packs, or other data about snow packs that do not fit into the other data subject groups.

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hydropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water

control. The agencies that contribute data are responsible for providing published quality controlled data.

Accuracy Variation: No.

U.S. Geological Survey (037)

The location and description of snow packs are collected by the U.S. Geological Survey on a limited basis and maintained in the National Water Information System database. Snow pack data are usually only gathered for specific studies. The U.S. Geological Survey relies on the U.S. Soil Conservation for detailed and continuous snow pack information.

Snow Pack Quality Data Subject Group

The condition of a snow pack, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollution; and quality history, patterns, trends, and changes.

Snow Pack Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns, trends, or changes of those data for any snow pack. Snow pack quantity data represent the water supply in snow.

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hydropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Geological Survey (037)

Snow pack thickness data are collected by the U.S. Geological Survey on a limited basis and maintained in the National Water Information System database. Snow pack data are usually only gathered for specific studies. The U.S. Geological Survey relies on the U.S. Soil Conservation Service for detailed and continuous snow pack information.

Spring Data Subject Area

The Spring Data Subject Area includes any data pertaining to the identification, location, description, quantity, quality, or use of a spring or spring water.

Spring Descriptive Data Subject Group

Any location, identification, or description data about springs, or other data about springs that do not fit into the other data subject groups.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Tabular.
Units of Measurement:	+/- 0.1 cubic feet per second.
Reference Method(s):	Quarter quarter Section and owner.
Unique Identifier(s):	Water right application number.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek drainage basin, Vashon Island. McDonald Creek, and Mason Creek.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	Feet.
Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	Mellor Springs.
Collected or Acquired:	Collected.
Collection Frequency:	At time of establishment..
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will add surface water descriptive as sampling site is established.
Data Accuracy:	95%.
Accuracy Variation:	Quality is stable.

U.S. Geological Survey (037)

Spring data are collected by the U.S. Geological Survey and maintained in the National Water Information System database by a unique identifier based on Latitude / Longitude. In addition, a local number based on the Public Land Survey System is also used to identify spring locations.

Spring Quality Data Subject Group

The condition of spring water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and quality history, patterns, trends, and changes.

Department of Ecology (002)

Geographic Area(s):	Anybody with a permit. Water body names for watersheds. Water body numbers for specific segments of streams Statewide.
Time Period(s):	1989 to 1992.
Data Organization:	Tabular.
Units of Measurement:	**Varies and we** don't have a Quality Assurance / Quality Control program in place.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Water body numbers.
Collected or Acquired:	Both. Monthly submittals are reentered into our computer system.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Facilities with Permits.
Data Alteration:	Might correct obvious errors in reporting.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek drainage basin, Vashon Island. McDonald Creek, and Mason Creek.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	0.1 to 0.001 in milligrams/liter, micrograms/liter, micromhos/centimeter, cubic feet per second/100 milliliters, etc.
Reference Method(s):	State Plane and Public Land Survey.
Unique Identifier(s):	Mellor Springs.
Collected or Acquired:	Collected.
Collection Frequency:	Quarterly.
Continued Collection:	Yes.
Acquired From:	

Data Alteration:	
Additional Data Plans:	We will add data as environmental conditions occur.
Data Accuracy:	95%.
Accuracy Variation:	No quality changes.

U.S. Geological Survey (037)

Spring water-quality data are collected by the U.S. Geological Survey and maintained in the National Water Information System database. Spring water-quality data are usually only collected for a limited period of time for a specific study.

University of Washington (033)

Geographic Area(s):	Pierce County, Pack Forest Domestic Spring.
Time Period(s):	1969 to present.
Data Organization:	Spatial fromfield samplings.
Units of Measurement:	Bacterial in colony units. Chemical in parts per million
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	100%.
Accuracy Variation:	No variance.

Spring Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns and trends of those data for any spring, excluding the use of water from a spring. Spring quantity data represent the water supply in springs.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Tabular.
Units of Measurement:	+/- 0.1 cubic feet per second.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50 to 80%.
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Nationwide.
Time Period(s):	All.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	All types. Varies widely with media and analysis methodology. Latitude / Longitude as well.
Unique Identifier(s):	Primary street identification number and common "resource" name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey, Department of Ecology, U.S. Bureau of Reclamation, Department of Social and Health Services.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50 to 90%.
Accuracy Variation:	

U.S. Geological Survey (037)

Spring quantity data are collected by the U.S. Geological Survey and maintained in the National Water Information System database. Spring quantity data are usually only collected for a limited period of time for a specific study.

Spring Resource Data Subject Group

Any biological, physical, or chemical resource that exists in a spring or has a high dependency on a spring.

Spring Use Data Subject Group

The use of water in a spring or removed from a spring. Spring use data include points of diversion, quantities, frequency, and duration, and any quality changes resulting from use. Spring use data do not include data about Water Systems or the specific off-body use of water, but include summarized data about off-body water use.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Tabular.
Units of Measurement:	+/- 1 cubic feet per second.
Reference Method(s):	Quarter quarter Section and owner.
Unique Identifier(s):	Water right application number.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50%.
Accuracy Variation:	

U.S. Geological Survey (037)

Spring water-use data are maintained in the National Water Information System database. Some of these data are collected by U.S. Geological Survey personnel for a limited period of time for a specific study, while more continuous data are obtained from other sources such as the Washington State Department of Health.

Stream Data Subject Area

The Stream Data Subject Area includes any data pertaining to the identification, location, description, quantity, quality, or use of stream water.

Stream Descriptive Data Subject Group

Any location, identification, or description data about streams, or other data about streams that do not fit into the other data subject groups.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	Quarter quarter Section and owner.
Unique Identifier(s):	Tributary and proper name.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Olympia and Shelton; Totten, Skookum, Eld Watersheds. Kennedy, Schneider, Skookum, McLane, Perry Creeks.
Time Period(s):	July, 1990, to March, 1991.
Data Organization:	
Units of Measurement:	Conventional water quality parameters, quantitative stream habitat conditions.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	5X's in wet season. 2X's in dry season.
Continued Collection:	
Acquired From:	Squaxin Island Tribe Natural Resources Department West 81 Highway 108 Shelton Washington 98584

	Jeff Dickison (206) 426-9783
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	State, private, Federal and Tribal forest lands.
Time Period(s):	
Data Organization:	Spatial from U.S. Geological Survey Quadrangles at differing scales, plus update information from aerial imagery and field surveys.
Units of Measurement:	
Reference Method(s):	Geographic Information System base is State Plane Coordinates.
Unique Identifier(s):	Water Resource Inventory Area stream identifier.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Variable depending upon resources available.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Statewide.
Time Period(s):	Varies.
Data Organization:	Spatial.
Units of Measurement:	Satellite.
Reference Method(s):	
Unique Identifier(s):	Universal Transverse Mercator and Environmental Protection Agency research number.
Collected or Acquired:	Acquired.
Collection Frequency:	
Continued Collection:	No.
Acquired From:	U.S. Geological Survey Water Resource Division in Portland, Oregon.
Data Alteration:	
Additional Data Plans:	Bruce Fisher U.S. Geological Survey

	Portland, Oregon (503) 231-2245 for information on the Environmental Protection Agency 1:100,000 reach file.
Data Accuracy:	90%.
Accuracy Variation:	

Pierce County (028)

Geographic Area(s):	Pierce, Minter Watershed, Burley Watershed Mayo Cove Watershed.
Time Period(s):	Mayo Cove February, 1989, to September, 1990.
	Burley Watershed January, 1989, to January, 1990.
	Minter Watershed January, 1989, to January, 1990.
Data Organization:	Tabular.
Units of Measurement:	Temperature +/- 1 degree Celsius. Fecal Coliform 1/100 milliliter Organisms/100 milliliter. Salinity Marine Water 0.1 parts per thousand pH 0.1. Conductivity 1 micromhos/centimeter. Stream Flow 0.1 cubic feet per second.
Reference Method(s):	U.S. Geological Survey Maps.
Unique Identifier(s):	Separate Data Bases for each area.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Bi-monthly and Rain Event Driven.
Continued Collection:	
Acquired From:	Marine water data from Department of Health Kitsap County area Bremerton-Kitsap County Health Department.
Data Alteration:	
Additional Data Plans:	Possibly Rocky Bay and the associated watershed if funding is available.
Data Accuracy:	90%.
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide for river flow data and legal data. Nationwide for reports.
Time Period(s):	Reports 1973 through 1992. River flow data to publication of first Guide Books.

Data Organization:	Tabular and spatial. For Guide Books visual observations by boaters and U.S. Geological Survey guage readings where available.
Units of Measurement:	cubic feet per second, gradient in feet per mile, and feet and inches on guage which is converted from a table to cubic feet per second.
Reference Method(s):	Number on gauging station for flow data. River stretches by river name and geographical features that define the start and end of a stretch.
Unique Identifier(s):	Name of river from a map. The stretch is identified by names of geographic features and sometime by names given by recreationalists.
Collected or Acquired:	Both.
Collection Frequency:	Data collected by boaters to satisfy needs of Guide Books. Data have been collected on Trip Reports.
Continued Collection:	Yes.
Acquired From:	Washington Kayak Club, Paddle Trails Canoe Club, Washington River Rafters Club.
Data Alteration:	None.
Additional Data Plans:	Data could be collected from Whatcom County, Spokane Kayak and Canoe Club, Puget Sound Paddle Club, Boeing White Water Club, Desert Rats Kayak Club in Ellensburg.
Data Accuracy:	80%.
Accuracy Variation:	Yes. U.S. Geological Survey gauging stations are subject to damage. Also, the gauging stations are too few and are not always located to reflect correct flow in a particular stretch of river.

Seattle-King County (035)

Geographic Area(s):	Redmond-Bear Creek Groundwater Management Area. Issaquah Creek Valley Groundwater Management Area. Vashon-Maury Island Groundwater Management Area. South King County Groundwater Management Area. East King County Groundwater Management Area.
Time Period(s):	
Data Organization:	Tabular.

Units of Measurement:	
Reference Method(s):	Township / Range / Section / sixteenth Section. Latitude / Longitude.
Unique Identifier(s):	Name of site. Township / Range / Section / sixteenth Section.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	On-going.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey, Washington State Department of Natural Resources, King County Surface Water Management.
Data Alteration:	
Additional Data Plans:	
Accuracy:	95%.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Tuck Creek, Walsh Lake Diversion Creek, Cedar River, and Judd Creek.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	Feet.
Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	By location within landfill property boundary; for example, NE1, NW1, NW2, etc.
Collected or Acquired:	Collected.
Collection Frequency:	At time of establishment.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will add surface water descriptive data as sampling site is established.
Data Accuracy:	95%.
Accuracy Variation:	Quality is stable.

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hydropower project data archived back to 1960.

Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Forest Service (041)

See description for stream descriptive data in reference.

U.S. Geological Survey (037)

Stream data are collected by the U.S. Geological Survey and maintained in the National Water Information System database by a unique identifier based on a U.S. Geological Survey site numbering convention. The Latitude and Longitude are stored for each site also. The elevation and drainage area are usually available for each site.

Stream Quality Data Subject Group

The condition of stream water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and quality history, patterns, trends, and changes.

Department of Ecology (002)

Geographic Area(s):	Anybody with a permit. Water body names for watersheds. Water body numbers for specific segments of streams. Statewide.
Time Period(s):	1989 to 1992.
Data Organization:	Tabular.
Units of Measurement:	Varies and we don't have a Quality Assurance / Quality Control program in place.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Water Body Numbers.
Collected or Acquired:	Both. Monthly submittals are reentered into our computer system.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Facilities with Permits.
Data Alteration:	Might correct obvious errors in reporting.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Department of Ecology (026)

Geographic Area(s):	Thurston and Pierce Counties for Nisqually Watershed and South Puget Sound.
Time Period(s):	April, 1991, to present.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	

Data Accuracy:	100%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Quilcene; Dabob Bay Watershed, Big Quilcene, Little Quilcene, Donovan, Leland, Coyle, Tarboo Creeks, and Cemetery Drain
Time Period(s):	July, 1986, to April, 1987.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Jefferson County Water Quality Program P.O. Box 1220 Port Townsend, Washington 98368 Glenn Gately (206) 385-9355.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	Uncertified lab used for analysis and lack of Quality Assurance / Quality Control program.

Department of Ecology (044)

Geographic Area(s):	Olympia, Shelton; Totten, Skookum, Eld Watersheds. Kennedy, Schneider, Skookum, McLane, and Perry Creeks.
Time Period(s):	July, 1990, to March, 1991.
Data Organization:	
Units of Measurement:	Conventional water quality parameters, quantitative stream habitat conditions.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	5X's in wet season. 2X's in dry season.
Continued Collection:	
Acquired From:	Squaxin Island Tribe Natural Resources Department West 81 Highway 108 Shelton Washington 98584

	Jeff Dickison (206) 426-9783
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Sequim; Strait of Juan de Fuca, Bay Watershed, Bell, Johnson, Jimmy-Come-Lately and other creeks
Time Period(s):	September, 1986, to May, 1987. October, 1987, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: weekly. Period 2: Monthly or less.
Continued Collection:	Yes, contingent on continued funding.
Acquired From:	Clallam County Water Quality Office 223 East 4th Street Port Angeles, Washington 98362.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Belfair; Hood Canal, Lynch Cove, Union River, Skokomish River, Mission, Dewatto, Little Dewatto, Rendsland, Tahuya, and other creeks.
Time Period(s):	August, 1990, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	2X's in dry season. 4X's in wet season. Intensive sampling during storm event once per year.

Continued Collection:	Yes, contingent on future funding.
Acquired From:	Mason County Water Quality Program P.O. Box 186 Shelton, Washington 98584 Wayne Clifford (206) 427-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Allyn; South Puget Sound, North Bay Watershed, Sherwood, Coulter and other creeks and drainages.
Time Period(s):	August, 1990, to September, 1991.
Data Organization:	
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	2X's in dry season. 4X's in wet season. Intensive sampling during storm event once per year.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Mason County Water Quality Program P.O. Box 186 Shelton, Washington 98584 Wayne Clifford (206) 427-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Shelton; South Puget Sound, Oakland Bay Watershed, Goldsborough, Shelton, Campbell, Deer, Cranberry, Uncle John's, Malaney, John's, Coffee Creeks.
Time Period(s):	January, 1988, to March, 1989. April, 1990, to September, 1991.
Data Organization:	Tabular.

Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's indry season and 4X's in wet season. Intensive sampling during storm event once per year.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Mason County Water Quality Program P.O. Box 186 Shelton, Washington 98584 Wayne Clifford (206) 427-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	Yes, due to different agencies and different laboratories.

Department of Ecology (044)

Geographic Area(s):	Lacey; South Puget Sound, Henderson Inlet Watershed, Woodland Creek, Woodard Creek, and others.
Time Period(s):	August, 1983, to August, 1984. January, 1988, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season and 4X's in wet season.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Thurston County Health Department 2000 Lakeridge Drive Olympia, Washington 98502 Linda Hofstadt (206) 754-4111.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Olympia; South Puget Sound, Eld Inlet Watershed, McLane, Perry, Evergreen, Madrona, Tunnel, Simmons, Surprise, Houston, and Green Cove Creeks.
Time Period(s):	August, 1983, to August, 1984. January, 1988, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season and 4X's in wet season.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Thurston County Health Department 2000 Lakeridge Drive Olympia, Washington 98502 Linda Hofstadt (206) 754-4111.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Olympia and Shelton; South Puget Sound, Totten-Skookum Inlet Watershed, Kennedy, Schneider, Burns, Pierre, Yellow Rock, and Little Skookum Creeks.
Time Period(s):	August, 1984, to September, 1985. January, 1988, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season and 4X's in wet season.
Continued Collection:	Yes, contingent on future funding.

Acquired From:	Totten Inlet Thurston County Health Department 2000 Lakeridge Drive Olympia, WA 98502 Linda Hofstadt (206) 754-4111 Skookum Inlet Mason County Department of Health P.O. Box 186 Shelton Washington 98584 Wayne Clifford (206) 426-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Purdy; South Puget Sound, Minter Bay Watershed-Minter, Little Minter and Huge Creek. Burley Lagood Watershed-Bear, Burley and Purdy Creeks.
Time Period(s):	January, 1983, to December, 1983. January, 1989, to December, 1989.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: 2X's per month. Period 2: 1X per month.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Bremerton-Kitsap County Health Department, 109 Austin Drive Bremerton Washington 98312 Keith Grellner (206) 478-5285.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	Two separate agencies, different laboratories, and different time periods.

Department of Ecology (044)

Geographic Area(s):	South Bend, Willapa Bay Watershed Streams and Tributaries.

Time Period(s): January, 1991, to September, 1991.
Data Organization: Tabular.
Units of Measurement: Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):
Unique Identifier(s):
Collected or Acquired: Acquired.
Collection Frequency: Intensive sampling during storm event with similar sampling during a dry period.
Continued Collection: Unknown.
Acquired From: Pacific County Health and Human Services Department
P.O. Box 26
South Bend Washington 98586
Scott Berbells (206) 875-9377.
Data Alteration:
Additional Data Plans:
Data Accuracy: 95%.
Accuracy Variation:

Department of Ecology (044)

Geographic Area(s): La Conner; Smilt-Kiket Bays Watershed streams and drains.
Time Period(s): January, 1992, to present.
Data Organization: Tabular and Spatial. Consult contact person for details on spatial.
Units of Measurement: Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):
Unique Identifier(s):
Collected or Acquired: Acquired.
Collection Frequency: Monthly. Wet and dry season sampling of stream, drains, and seeps.
Continued Collection: Unknown.
Acquired From: Swinomish Indian Tribal Community
P.O. Box 817
950 Moorage Way
La Conner Washington 98257
Ed Knight (206) 466-3163.
Data Alteration:
Additional Data Plans:
Data Accuracy:
Accuracy Variation:

Department of Ecology (044)

Geographic Area(s):	Blaine, Drayton Harbor Watershed, Dakota, California and other creeks.
Time Period(s):	January, 1991, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Every two months. Sampling of suspected non-point pollution sources during wet, dry periods.
Continued Collection:	Unknown.
Acquired From:	Whatcom County Council of Governments, 1203 Cornwall Number 104 Bellingham Washington 98225 Becky Peterson (206) 738-6974.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Fisheries (010)

Geographic Area(s):	All streams from which Department of Fisheries hatchery facilities operate. Statewide.
Time Period(s):	1979 to 1989.
Data Organization:	Tabular.
Units of Measurement:	Temperature in Fahrenheit.
Reference Method(s):	Stream and hatchery facility name.
Unique Identifier(s):	Stream and hatchery name.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	100%.
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Nationwide.
Time Period(s):	All.

Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	All types. Varies widely with media and analysis methodology. Latitude / Longitude as well.
Unique Identifier(s):	Primary street identification number and common "resource" name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey, Department of Ecology, U.S. Bureau of Reclamation, Department of Social and Health Services.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50 to 90%.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Tuck Creek, Walsh Lake Diversion Creek, Cedar River, and Judd Creek.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	0.1 to 0.001 in milligrams/liter, micrograms/liter, micromhos/centimeter, cubic feet per second/100 milliliters, etc.
Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	By location within landfill property boundary; for example, NE1, NW1, NW2, etc.
Collected or Acquired:	Collected.
Collection Frequency:	Quarterly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will add data as environmental conditions warrant.
Data Accuracy:	95%.
Accuracy Variation:	No quality changes.

Pierce County (028)

Geographic Area(s):	Pierce, Minter Watershed, Burley Watershed, and Mayo Cove Watershed
Time Period(s):	Mayo Cove February, 1989, to September, 1990. Burley Watershed January, 1989, to January, 1990. Minter Watershed January, 1989, to January, 1990.
Data Organization:	Tabular.
Units of Measurement:	Temperature +/- 1 degree Celsius. Fecal Coliform 1/100milliliter. Organisms per 100 milliliter. Salinity Marine Water 0.1 parts per thousand. pH 0.1. Conductivity 1 micromhos/centimeter. Stream Flow 0.1 cubic feet per second.
Reference Method(s):	U.S. Geological Survey Maps.
Unique Identifier(s):	Separate Data Bases for each area.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Bi-monthly and Rain Event Driven.
Continued Collection:	
Acquired From:	Marine water data from Department of Health, Kitsap County area data from Bremerton-Kitsap County Health Department.
Data Alteration:	
Additional Data Plans:	Possibly Rocky Bay and the associated watershed if funding is available.
Data Accuracy:	90%.
Accuracy Variation:	

Quileute Indian Tribe (043)

See description for stream water quality data in reference.

Recreational Caucus (025)

Geographic Area(s):	Statewide for river flow data and legal data. Nationwide for reports.
Time Period(s):	Reports 1973 through 1992. River flow data to publication of first Guide Books.

Data Organization:	Tabular and spatial. For Guide Books visual observations by boaters and U.S. Geological Survey guage readings where available.
Units of Measurement:	Cubic feet per second, gradient in feet per mile, and feet and inches on guage which is converted from a table to cubic feet per second.
Reference Method(s):	Number on gauging station for flow data. River stretches by river name and geographical features that define the start and end of a stretch.
Unique Identifier(s):	Name of river from a map. The stretch is identified by names of geographic features and sometime by names given by recreationalists.
Collected or Acquired:	Both.
Collection Frequency:	Data collected by boaters to satisfy needs of Guide Books. Data have been collected on Trip Reports.
Continued Collection:	Yes.
Acquired From:	Washington Kayak Club, Paddle Trails Canoe Club, Washington River Rafters Club.
Data Alteration:	None.
Additional Data Plans:	Data could be collected from Whatcom County, Spokane Kayak and Canoe Club, Puget Sound Paddle Club, Boeing White Water Club, Desert Rats Kayak Club in Ellensburg.
Data Accuracy:	80%.
Accuracy Variation:	Yes. U.S. Geological Survey gauging stations are subject to damage. Also, the gauging stations are too few and are not always located to reflect correct flow in a particular stretch of river.

Thurston County Public Health (005)

Geographic Area(s):	Thurston County. Southern Puget Sound Region. Deschutes River, Black River, and tributaries; Woodland, Woodard, McLane, Perry, Simmons, Green Cove, Sleepy, Dobbs, Meyers, Kennedy, Schneider, Burns, and Prairie Creeks.
Time Period(s):	December, 1990, to Present for Deschutes River, Black River and tributaries. Spring 1983 to Present for Woodland, Woodard, McLane, Perry, Simmons, Green Cove, Sleepy, Dobbs, and Meyers Creeks.

	1985 to Present for Kennedy, Schneider, Burns, and Prairie Creeks.
Data Organization:	Tabular.
Units of Measurement:	Fecal in coliform organisms / 100 milliliter. pH, conductivity, dissolved oxygen, temperature, flow, turbidity, total suspended solids, salinity, nutrients, priority pollutants.
Reference Method(s):	Sections, river miles, roads, and specific addresses
Unique Identifier(s):	Name.
Collected or Acquired:	Collected.
Collection Frequency:	Depends on study; mostly wet season and dry season.
Continued Collection:	Yes.
Acquired From:	Receive Department of Health marine ambient data.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980.. Some hydropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.

Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Geological Survey (037)

Stream water-quality data are collected by the U.S. Geological Survey and maintained in the National Water Information System database. Stream water-quality data are collected on a continuous basis for many streams in Washington State and include chemical measurements as well as sediment load determinations. Certain streams may be monitored more intensely for limited periods of time for specific studies.

University of Washington (033)

Geographic Area(s):	Pierce County; Nisqually River
Time Period(s):	1981 to present.
Data Organization:	Spatial from field samplings.
Units of Measurement:	Bacterial in Colony Units. Chemical in Parts per million.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	Periodic every few years.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	100%.
Accuracy Variation:	No variance.

Stream Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns, trends, or changes of those data for any stream. Stream quantity data represent the water supply in a stream. Monitoring stations are included as stream quantity data.

Department of Ecology (003)

Geographic Area(s):	Rivers and streams. Statewide.
Time Period(s):	1970 to Present.
Data Organization:	Tabular and Spatial. Spatial are digitized maps of flood hazard areas; DLG-3 format; 1:24,000 scale.
Units of Measurement:	0.1 feet Mean Sea Level.
Reference Method(s):	Public Land Survey.
Unique Identifier(s):	River or stream name.
Collected or Acquired:	Acquired.
Collection Frequency:	
Continued Collection:	
Acquired From:	Federal Emergency Management Agency Rights Information System.
Data Alteration:	Adjust edge mapping.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Tabular.
Units of Measurement:	Three significant digits in cubic feet per second.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Site number by region.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly.
Continued Collection:	Yes.
Acquired From:	Counties, U.S. Geological Survey, and other state agencies.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50-80%.
Accuracy Variation:	

Department of Ecology (026)

Geographic Area(s):	South Puget Sound Nisqually Watershed area and associated rivers.
Time Period(s):	April, 1991, to present.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey.
Data Alteration:	
Additional Data Plans:	New stations on the Ohop and Mashel Rivers.
Data Accuracy:	100%.
Accuracy Variation:	Potentially during low flows.

Department of Ecology (044)

Geographic Area(s):	Quilcene; Dabob Bay Watershed, Big Quilcene, Little Quilcine, Donovan, Leland, Coyle, Tarboo Creeks, and Cemetery Drain.
Time Period(s):	July, 1986, to April, 1987.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes; contingent on future funding.
Acquired From:	Jefferson County Water Quality Program P.O. Box 1220 Port Townsend, Washington 98368 Glenn Gately (206) 385-9355.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	Uncertified lab used for analysis and lack of Quality Assurance / Quality Control program.

Department of Ecology (044)

Geographic Area(s):	Olympia and Shelton; Totten, Skookum, Eld Watersheds. Kennedy, Schneider, Skookum, McLane, and Perry Creeks.
Time Period(s):	July, 1990, to March, 1991.
Data Organization:	
Units of Measurement:	Conventional water quality parameters, quantitative stream habitat conditions.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	5X's in wet season. 2X's in dry season.
Continued Collection:	
Acquired From:	Squaxin Island Tribe Natural Resources Department West 81 Highway 108 Shelton Washington 98584 Jeff Dickison (206) 426-9783.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Sequim; Strait of Juan de Fuca, Bay Watershed, Bell, Johnson, Jimmy-Come-Lately and other creeks
Time Period(s):	September, 1986, to May, 1987. October, 1987, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: weekly. Period 2: Monthly or less.
Continued Collection:	Yes, contingent on continued funding.
Acquired From:	Clallam County Water Quality Office 223 East 4th Street Port Angeles Washington 98362.
Data Alteration:	

Additional Data Plans:
Data Accuracy: 95%.
Accuracy Variation:

Department of Ecology (044)

Geographic Area(s): Belfair; Hood Canal, Lynch Cove, Union River, Skokomish River, Mission, Dewatto, Little Dewatto, Rendsland, Tahuya and other creeks.
Time Period(s): August, 1990, to present.
Data Organization: Tabular.
Units of Measurement: Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):
Unique Identifier(s):
Collected or Acquired: Acquired.
Collection Frequency: 2X's in dry season.
4X's in wet season.
Intensive sampling during storm event once per year.
Continued Collection: Yes, contingent on future funding.
Acquired From: Mason County Water Quality Program
P.O. Box 186
Shelton, Washington 98584
Wayne Clifford (206) 427-9670.
Data Alteration:
Additional Data Plans:
Data Accuracy:
Accuracy Variation:

Department of Ecology (044)

Geographic Area(s): Allyn; South Puget Sound, North Bay Watershed, Sherwood, Coulter and other creeks and drainages.
Time Period(s): August, 1990, to September, 1991.
Data Organization:
Units of Measurement: Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):
Unique Identifier(s):
Collected or Acquired Acquired.
Collection Frequency: 2X's in dry season.
4X's in wet season.
Intensive sampling during storm event once per year.

Continued Collection:	Yes, contingent on future funding.
Acquired From:	Mason County Water Quality Program P.O. Box 186 Shelton, Washington 98584 Wayne Clifford (206) 427-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Shelton; South Puget Sound, Oakland Bay Watershed, Goldsborough, Shelton, Campbell, Deer, Cranberry, Uncle John's, Malaney, John's, and Coffee Creeks.
Time Period(s):	January, 1988, to March, 1989. April, 1990, to September, 1991.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season and 4X's in wet season. Intensive sampling during storm event once per year.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Mason County Water Quality Program P.O. Box 186 Shelton, Washington 98584 Wayne Clifford (206) 427-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	Yes, due to different agencies and different laboratories.

Department of Ecology (044)

Geographic Area(s):	Lacey; South Puget Sound, Henderson Inlet Watershed, Woodland Creek, Woodard Creek, and others.
Time Period(s):	August, 1983, to August, 1984.

	January, 1988, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season and 4X's in wet season.
Continued Collection:	Yes; contingent on future funding.
Acquired From:	Thurston County Health Department 2000 Lakeridge Drive Olympia, Washington 98502 Linda Hofstadt (206) 754-4111.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Olympia; South Puget Sound, Eld Inlet Watershed, McLane, Perry, Evergreen, Madrona, Tunnel, Simmons, Surprise, Houston, and Green Cove Creeks.
Time Period(s):	August , 1983, to August, 1984. January, 1988, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season and 4X's in wet season.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Thurston County Health Department 2000 Lakeridge Drive Olympia, Washington 98502 Linda Hofstadt (206) 754-4111.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Olympia and Shelton; South Puget Sound, Totten-Skookum Inlet Watershed, Kennedy, Schneider, Burns, Pierre, Yellow Rock, Little Skookum Creeks.
Time Period(s):	August, 1984 to September, 1985. January, 1988 to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: Monthly (approximately). Period 2: 2X's in dry season and 4X's in wet season.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Totten Inlet Thurston County Health Department 2000 Lakeridge Drive Olympia 98502 Linda Hofstadt (206) 754-4111 Skookum Inlet Mason County Department of Health P.O. Box 186 Shelton Washington 98584 Wayne Clifford (206) 426-9670.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Purdy; South Puget Sound, Minter Bay Watershed-Minter, Little Minter and Huge Creek. Burley Lagoon Watershed, Bear, Burley and Purdy Creeks.
Time Period(s):	January, 1983, to December, 1983. January, 1989, to December, 1989.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	

Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Period 1: 2X's per month. Period 2: 1X per month.
Continued Collection:	Yes, contingent on future funding.
Acquired From:	Bremerton-Kitsap County Health Department, 109 Austin Drive Bremerton Washington 98312 Keith Grellner (206) 478-5285.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	Two separate agencies, different laboratories, and different time periods.

Department of Ecology (044)

Geographic Area(s):	South Bend, Willapa Bay Watershed Streams and Tributaries.
Time Period(s):	January, 1991, to September, 1991.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Intensive sampling during storm event with similar sampling during a dry period.
Continued Collection:	Unknown.
Acquired From:	Pacific County Health and Human Services Department P.O. Box 26 South Bend Washington 98586 Scott Berbells (206) 875-9377.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	La Conner; Smilt-Kiket Bays Watershed streams and drains.
Time Period(s):	January, 1992, to present.
Data Organization:	Tabular and Spatial (consult contact person for details on spatial).

Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Monthly. Wet and dry season sampling of stream, drains, and seeps.
Continued Collection:	Unknown.
Acquired From:	Swinomish Indian Tribal Community P.O. Box 817 950 Moorage Way La Conner Washington 98257 Ed Knight (206) 466-3163.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Ecology (044)

Geographic Area(s):	Blaine, Drayton Harbor Watershed, Dakota, California, and other creeks.
Time Period(s):	January, 1991, to present.
Data Organization:	Tabular.
Units of Measurement:	Fecal coliforms, flow, and other conventional water quality parameters.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Acquired.
Collection Frequency:	Every two months. Sampling of suspected non-point pollution sources during wet, dry periods.
Continued Collection:	Unknown.
Acquired From:	Whatcom County Council of Governments 1203 Cornwall Number 104 Bellingham Washington 98225 Becky Peterson (206) 738-6974.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

National Oceanic and Atmospheric Administration (001)

Geographic Area(s):	Washington, Oregon, and Idaho.
Time Period(s):	Period of record for each site.
Data Organization:	Tabular.

Units of Measurement:	Cubic feet per second annual flow.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Most sites defined by a National Weather Service Handbook Site Identification and U.S. Geological Survey Stream Site Number.
Collected or Acquired:	Both.
Collection Frequency:	Monthly, Weekly, Daily, Hourly.
Continued Collection:	Yes.
Acquired From:	U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, US Geological Survey, State of Washington, Some Power Companies.
Data Alteration:	Quality control as data comes in and report bad data to responsible party.
Additional Data Plans:	No.
Data Accuracy:	90%.
Accuracy Variation:	Yes, data less accurate at the extremes and during special events, like ice in a river, etc.

Pierce County (028)

Geographic Area(s):	Pierce, Minter Watershed, Burley Watershed, and Mayo Cove Watershed.
Time Period(s):	Mayo Cove February, 1989, to September, 1990. Burley Watershed January, 1989, to January, 1990. Minter Watershed January, 1989, to January, 1990.
Data Organization:	Tabular.
Units of Measurement:	Temperature +/- 1 degree Celsius. Fecal Coliform 1/100milliliter. Organisms per 100milliliter. Salinity Marine Water 0.1 parts per thousand. pH 0.1. Conductivity 1 micromhos/centimeter. Stream Flow 0.1 cubic feet per second.
Reference Method(s):	U.S. Geological Survey Maps.
Unique Identifier(s):	Separate databases for each area.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Bi-monthly and Rain Event Driven.
Continued Collection:	
Acquired From:	Marine water data from Department of Health, Kitsap County area, data from Bremerton-Kitsap County Health Department.
Data Alteration:	

Additional Data Plans:	Possibly Rocky Bay and the associated watershed if funding is available.
Data Accuracy:	90%.
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide for river flow data and legal data. Nationwide for reports.
Time Period(s):	Reports 1973 through 1992. River flow data to publication of first Guide Books.
Data Organization:	Tabular and spatial. For Guide Books visual observations by boaters and U.S. Geological Survey guage readings where available.
Units of Measurement:	cubic feet per second, gradient in feet per mile, and feet and inches on guage which is converted from a table to cubic feet per second.
Reference Method(s):	Number on gauging station for flow data. River stretches by river name and geographical features that define the start and end of a stretch.
Unique Identifier(s):	Name of river from a map. The stretch is identified by names of geographic features and sometime by names given by recreationalists.
Collected or Acquired:	Both.
Collection Frequency:	Data collected by boaters to satisfy needs of Guide Books. Data have been collected on Trip Reports.
Continued Collection:	Yes.
Acquired From:	Washington Kayak Club, Paddle Trails Canoe Club, Washington River Rafters Club.
Data Alteration:	None.
Additional Data Plans:	Data could be collected from in Whatcom County, Spokane Kayak and Canoe Club, Puget Sound Paddle Club, Boeing White Water Club, Desert Rats Kayak Club in Ellensburg.
Data Accuracy:	80%.
Accuracy Variation:	Yes. U.S. Geological Survey gauging stations are subject to damage. Also, the gauging stations are too few and are not always located to reflect correct flow in a particular stretch of river.

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. This is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. Surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Seattle-King County (035)

Geographic Area(s):	Redmond-Bear Creek Groundwater Management Area. Issaquah Creek Valley Groundwater Management Area. Vashon-Maury Island Groundwater Management Area.

	South King County Groundwater Management Area. East King County Groundwater Management Area.
Time Period(s):	November, 15, 1989, to present for Cottage Lake Creek December, 1989, to present for Beall Creek. October, 1989, to present for Judd Creek. January, 1991, to present for Fisher Creek. August, 1989, to present for Mileta Creek. August, 1989, to August, 1990 for Shinglemill Creek.
Data Organization:	Tabular.
Units of Measurement:	0.1 cubic feet per second. 100 cubic feet per second.
Reference Method(s):	Township / Range / Section / sixteenth Section. Latitude / Longitude.
Unique Identifier(s):	Name of site. Township / Range / Section / sixteenth Section. Date and time.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	15 minute intervals for Cottage Lake Creek and acquired data. Monthly staff gauge readings for other listed creeks.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey, Washington State Department of Natural Resources, King County Surface Water Management.
Data Alteration:	
Additional Data Plans:	Collection of staff gauge data will be replaced with collection of 15 minute interval stream discharge data. Other Agencies responsible for groundwater management areas.
Accuracy:	95%.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Tuck Creek, Walsh Lake Diversion Creek, Cedar River, and Judd Creek.
Time Period(s):	Winter 1989 to Spring 1992.
Data Organization:	Tabular.
Units of Measurement:	0.1 foot.

Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	Stream name.
Collected or Acquired:	Collected
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will add data as environmental conditions warrant.
Data Accuracy:	95%.
Accuracy Variation:	1990 year of data may contain errors due to equipment malfunction.

Thurston County Public Health (005)

Geographic Area(s):	Thurston County. Sourthern Puget Sound Region. Deschutes and Black River and tributaries; Woodland, Woodard, McLane, Perry, Simmons, Green Cove, Sleepy, Dobbs, Meyers, Kennedy, Schneider, Burns, and Prairie Creeks
Time Period(s):	
Data Organization:	Tabular.
Units of Measurement:	Nearest 0.1 cubic feet per second.
Reference Method(s):	County map and Section, Township, and Range.
Unique Identifier(s):	Name.
Collected or Acquired:	Both.
Collection Frequency:	Monthly; varies depending on objectives ot study.
Continued Collection:	Uncertain; dependent on funding.
Acquired From:	U.S. Geological Survey. Department of Ecology. Thurston County Public Works.
Data Alteration:	No.
Additional Data Plans:	No.
Data Accuracy:	60 to 90% depending on site conditions.
Accuracy Variation:	

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980.

	Some hydropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are responsible for providing published quality controlled data.
Accuracy Variation:	No.

U.S. Army Corps of Engineers (018)

Geographic Area(s):	Southeastern Washington for Mill Creek Lake Project
Time Period(s):	Early 1960 to present.
Data Organization:	Tabular.
Units of Measurement:	Electronic monitor to nearest 0.01 foot flow cubic feet per second.
Reference Method(s):	State Plane Coordinates, Public Land Survey.
Unique Identifier(s):	U.S. Geological Survey name.
Collected or Acquired:	Collected.
Collection Frequency:	Monthly.
Continued Collection:	Yes.

Acquired From:
Data Alteration:
Additional Data Plans: U.S. Army Corps of Engineers
Walla Walla District Office
David R. Reese (509) 522-6599.
Data Accuracy: 100%.
Accuracy Variation:

U.S. Geological Survey (037)

The U.S. Geological Survey collects and maintains stream quantity data at many rivers throughout the state. The data consist of routine measurements of stage that are collected on a continuous basis. The U.S. Geological Survey converts stage measurements to streamflow (discharge) measurements through the application of in-house rating curves. A number of streams may be monitored for a limited time only for a specific study.

Stream Resource Data Subject Group

Any biological, physical, or chemical resource that exists in a stream or has a high dependency on a stream.

Department of Ecology (019)

Geographic Area(s):	
Time Period(s):	Present.
Data Organization:	Tabular.
Units of Measurement:	Size, factor and number of fish.
Reference Method(s):	Stream reach by river mile.
Unique Identifier(s):	Proper name, river mile and transect number.
Collected or Acquired:	Collected.
Collection Frequency:	Low, medium, and high flow.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Nationwide.
Time Period(s):	All.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	All types. Varies widely with media and analysis methodology. Latitude / Longitude as well.
Unique Identifier(s):	Primary street identification number and common "resource" name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey, Department of Ecology, U.S. Bureau of Reclamation, Department of Social and Health Services.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50 to 90%.
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Puget lowlands, Columbia Basin, and Cascade streams.
Time Period(s):	
Data Organization:	
Units of Measurement:	
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide for river flow data and legal data. Nationwide for reports.
Time Period(s):	Reports 1973 through 1992. River flow data to publication of first guide books.
Data Organization:	Tabular and spatial. For Guide Books visual observations by boaters and U.S. Geological Survey guage readings where available.
Units of Measurement:	Cubic feet per second, gradient in feet per mile, and feet and inches on guage which is converted from a table to cubic feet per second.
Reference Method(s):	Number on gauging station for flow data. River stretches by river name and geographical features that define the start and end of a stretch.
Unique Identifier(s):	Name of river from a map. The stretch is identified by names of geographic features and sometime by names given by recreationalists.
Collected or Acquired:	Both.
Collection Frequency:	Data collected by boaters to satisfy needs of Guide Books. Data have been collected on Trip Reports.
Continued Collection:	Yes.
Acquired From:	Washington Kayak Club, Paddle Trails Canoe Club, Washington River Rafters Club.

Data Alteration:	None.
Additional Data Plans:	Data could be collected from Whatcom County, Spokane Kayak and Canoe Club, Puget Sound Paddle Club, Boeing White Water Club, Desert Rats Kayak Club in Ellensburg.
Data Accuracy:	80%.
Accuracy Variation:	Yes. U.S. Geological Survey gauging stations are subject to damage. Also, the gauging stations are too few and are not always located to reflect correct flow in a particular stretch of river.

U.S. Army Corps of Engineers (004)

Geographic Area(s):	Entire State of Washington.
Time Period(s):	Live database covers last 12 months. Archive data base goes back to 1980. Some hydropower project data archived back to 1960.
Data Organization:	Tabular.
Units of Measurement:	Data stored in whatever units of measurement and whatever accuracy the sensor can provide. The data are normally to the nearest 0.1 or 0.01 foot.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Data identified by a location code and parameter code. See comments under Data Organizations.
Collected or Acquired:	Both. The U.S. Army Corps of Engineers directly collects 10 percent of the data. The rest come from other Federal, State, and local agencies.
Collection Frequency:	Hourly. Data are added around the clock to the Columbia River Operational Hydromet Management Systems database.
Continued Collection:	Yes.
Acquired From:	U.S. Bureau of Reclamation, Soil Conservation Service, National Weather Service, Bonneville Power Administration, and U.S. Geological Survey.
Data Alteration:	No.
Additional Data Plans:	
Data Accuracy:	95%. Except for hydropower and fish data, no attempt is made for quality control. The purpose is to obtain data for real time water control. The agencies that contribute data are

	responsible for providing published quality controlled data.
Accuracy Variation:	No.

Stream Use Data Subject Group

The use of stream water, whether instream or out of stream, including points of diversion, quantities, frequency, duration, points of return, and any quality change resulting from use. Stream water use data do not include data about Water Systems or the specific off-body use of water, but include summarized data about off-body water use.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Tabular.
Units of Measurement:	+/- 0.1 cubic feet per second.
Reference Method(s):	Quarter quarter Section and owner.
Unique Identifier(s):	Water right application number.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	

Department of Fisheries (007)

Geographic Area(s):	All rivers where sport caught salmon are recorded, and marine management area where salmon is caught. Statewide.
Time Period(s):	1967 to 1988.
Data Organization:	Tabular.
Units of Measurement:	Species caught per month for freshwater Species caught per week for marine.
Reference Method(s):	Department of Fisheries marine management areas.
Unique Identifier(s):	River name and management number system, marine unit number system.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	Expand based on sampling.
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Fisheries (008)

Geographic Area(s):	Watershed Drainage for all streams that Department of Fisheries has a project on. Statewide.
Time Period(s):	June, 1986, to June, 1987.
Data Organization:	Tabular.
Units of Measurement:	River Miles.
Reference Method(s):	River Mile.
Unique Identifier(s):	Water Resource Inventory Area number and stream name.
Collected or Acquired:	Not currently done in computer format.
Collection Frequency:	
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	May re-institute database in near future.
Data Accuracy:	90%.
Accuracy Variation:	

Department of Fisheries (010)

Geographic Area(s):	All streams statewide that have hatchery or salmon culture facilities on them.
Time Period(s):	1952 to 1989.
Data Organization:	Tabular.
Units of Measurement:	Fish per pond, pounds released, number released.
Reference Method(s):	Name of hatchery.
Unique Identifier(s):	Stream and hatchery name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	Northwest Indian Fisheries Commission, U.S. Fish and Wildlife Service cooperatives.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Fisheries (011)

Geographic Area(s):	River basin and all streams where spawning ground surveys are or have been performed. Statewide.

Time Period(s):	1940 to 1990.
Data Organization:	Tubular.
Units of Measurement	Fish and redds per mile.
Reference Method(s):	Water Resource Inventory Area number and stream name.
Unique Identifier(s):	Water Resource Inventory Area number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	Northwest Indian Fisheries Commission.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	Yes, depending on the variation and clarity of the water.

Department of Fisheries (012)

Geographic Area(s):	Statewide and Snohomish River Basins.
Time Period(s):	Period 1: 1959 to 1990 for Pink Salmon. Period 2: 1965 to 1990 for Coho. Period 3: 1968 to 1990.
Data Organization:	Tabular.
Units of Measurement:	Number of fish in river basin.
Reference Method(s):	
Unique Identifier(s):	River basin and hatchery name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	Northwest Indian Fisheries Commission.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Fisheries (012)

Geographic Area(s):	Stream name and Department of Fisheries catch area.
Time Period(s):	1970 to 1990.
Data Organization:	Tabular.
Units of Measurement:	Catch area, species, gear type, pounds.
Reference Method(s):	Department of Fisheries catch area system.
Unique Identifier(s):	Stream name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually

Continued Collection:	Yes
Acquired From:	Northwest Indian Fisheries Commission, Department of Wildlife
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	100%.
Accuracy Variation:	

Department of Fisheries (013)

Geographic Area(s):	Hatchery and stream names, saltwater fish catch area where caught salmon have wire identifying tags. Statewide.
Time Period(s):	1973 to 1990.
Data Organization:	Tabular.
Units of Measurement:	Number of fish by species, recover per area, hatchery and stream.
Reference Method(s):	Water Resource Inventory Area number and hatchery name.
Unique Identifier(s):	Water Resource Inventory Area number and fish hatchery area.
Collected or Acquired:	Collected.
Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	Northwest Indican Fisheries Commission, U.S. Fish and Wildlife Service, Washington Department of Wildlife.
Data Alteration:	Catch sample is expanded to compute final catch statistics.
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Fisheries (014)

Geographic Area(s):	All rivers, streams and hatcheries where coded wire tagged fish are released throughout the State.
Time Period(s):	1971 to 1990.
Data Organization:	Tabular.
Units of Measurement:	Number of pounds per species and pounds of fish.
Reference Method(s):	Hatchery name and Water Resource Inventory Area number.
Unique Identifier(s):	Water Resource Inventory Area number.
Collected or Acquired:	Collected and acquired.

Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	U.S. Fish and Wildlife Service, Washington Department of Wildlife, Northwest Indian Fisheries Commission
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide for river flow data and legal data. Nationwide for reports.
Time Period(s):	Reports 1973 through 1992 River flow data to publication of first Guide Books.
Data Organization:	Tabular and spatial. For Guide Books visual observations by boaters and U.S. Geological Survey guage readings where available.
Units of Measurement:	Cubic feet per second, gradient in feet per mile, and feet and inches on guage which is converted from a table to cubic feet per second.
Reference Method(s):	Number on gauging station for flow data. river stretches by river name and geographical features that define the start and end of a stretch.
Unique Identifier(s):	Name of river from a map. The stretch is identified by names of geographic features and sometime by names given by recreationalists.
Collected or Acquired:	Both.
Collection Frequency:	Data collected by boaters to satisfy needs of Guide Books. Data have been collected on Trip Reports
Continued Collection:	Yes.
Acquired From:	Washington Kayak Club, Paddle Trails Canoe Club, Rafters organization.
Data Alteration:	None.
Additional Data Plans:	Data could be collected from Whatcom County, Spokane Kayak and Canoe Club, Puget Sound Paddle Club, Boeing White Water Club, Desert Rats Kayak Club in Ellensburg.
Data Accuracy:	80%.
Accuracy Variation:	Yes. U.S. Geological Survey gauging stations are subject to damage. Also, the gauging stations are too few and are not always located

to reflect correct flow in a particular stretch of river.

U.S. Geological Survey (037)

Stream water-use data are maintained in the National Water Information System database. Some of these data are collected by U.S. Geological Survey personnel for a limited period of time for a specific study, while more continuous data are obtained from other sources such as the Washington State Department of Health and the Washington State University Irrigated Agriculture Research Station, Thomas W. Ley, at (509) 786-2226. Irrigation water-use data are not identified by surface-water type.

Upland Data Subject Area

The Upland Data Subject Area includes any data pertaining to the upland, including natural features, topography, soil, vegetation, use, classification, etc.

Department of Ecology (002)

Geographic Area(s):	Anybody with a permit. Water body names for watersheds Water body numbers for specific segments of streams. Statewide.
Time Period(s):	1989 to 1992.
Data Organization:	Tabular.
Units of Measurement:	Varies and we don't have a Quality Assurance / Quality Control program in place.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Water Body Numbers.
Collected or Acquired:	Both. Monthly submittals are reentered into our computer system
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Facilities with permits.
Data Alteration:	Might correct obvious errors in reporting.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	State and Federal lands.
Time Period(s):	
Data Organization:	Tabular and Spatial (imagery, map and field surveys).
Units of Measurement:	
Reference Method(s):	Geographic Information System base is State Plane Coordinates. Other systems located by Public Land Survey.
Unique Identifier(s):	Many methods.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Variable.
Continued Collection:	Yes.
Acquired From:	Many organizations.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Tuck Creek, Walsh Lake Diversion Creek, Cedar River, and Judd Creek.
Time Period(s):	1983 to 1992.
Data Organization:	Tabular.
Units of Measurement:	Feet.
Reference Method(s):	State Plane Coordinates, Public Land Survey, and aerial photographs.
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	As needed.
Data Accuracy:	95%.
Accuracy Variation:	As needed.

Pierce County (028)

Geographic Area(s):	Pierce, Minter Watershed, Burley Watershed, and Mayo Cove Watershed.
Time Period(s):	Mayo Cove February, 1989, to September, 1990. Burley Watershed January, 1989, to January, 1990. Minter Watershed January, 1989, to January, 1990.
Data Organization:	Tabular.
Units of Measurement:	Temperature +/- 1 degree Celsius. Fecal Coliform 1/100milliliter. Organisms/100milliliter. Salinity Marine Water 0.1 parts per thousand. pH(0.1) . Conductivity 1 micromhos/centimeter. Stream Flow 0.1 cubic feet per second.
Reference Method(s):	U.S. Geological Survey Maps.
Unique Identifier(s):	Separate Data Bases for each area.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Bi-monthly and Rain Event Driven.
Continued Collection:	
Acquired From:	Marine water data from Department of Health Kitsap County area data from Bremerton-Kitsap County Health Department.
Data Alteration:	

Additional Data Plans:	Possibly Rocky Bay and the associated watershed if funding is available.
Data Accuracy:	90%.
Accuracy Variation:	

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. this is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	**Trip** reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

U.S. Geological Survey (037)

Limited upland data collected by the U.S. Geological Survey are available through published U.S. Geological Survey reports. Generally, the U.S. Geological Survey relies on information published by the Washington State Department of Natural Resources, the Geologic Division of the U.S. Geological Survey, the U.S. Soil Conservation Office, and the U.S. Forest Service.

Water Facility Data Subject Area

The Water Facility Data Subject Area includes any data pertaining to the characteristics and details of a water facility from the point of diversion or withdraw to the point of return.

Department of Ecology (002)

Geographic Area(s):	Anybody with a permit. Water body names for watersheds. Water body numbers for specific segments of streams. Statewide.
Time Period(s):	1989 to 1992.
Data Organization:	Tabular.
Units of Measurement:	Varies and we don't have a Quality Assurance / Quality Control program in place.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Water Body Numbers.
Collected or Acquired:	Both. Monthly submittals are re-entered into our computer system.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Facilities with permits.
Data Alteration:	Might correct obvious errors in reporting.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Department of Health (023)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	Water System Location.
Unique Identifier(s):	Name and source of supply.
Collected or Acquired:	Collected.
Collection Frequency:	Annually and monthly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	Local health departments.
Data Accuracy:	95+%.
Accuracy Variation:	

Jefferson County (032)

Geographic Area(s):	Olympic Peninsula; approximately 75 small water facilities.
Time Period(s):	Mid Sixties to present.
Data Organization:	Spatial from Section / Township / Range and field survey.
Units of Measurement:	
Reference Method(s):	Section / Township / Range.
Unique Identifier(s):	State water system Identification Number.
Collected or Acquired:	Acquired.
Collection Frequency:	
Continued Collection:	
Acquired From:	Washington Department of Health. Water purveyors.
Data Alteration:	
Additional Data Plans:	Performance data, water quantity monitoring reports.
Data Accuracy:	75%.
Accuracy Variation:	Has been improving. Better tracking of performance of existing facilities.

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Cedar River, and Judd Creek.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	0.1 to 0.001 milligrams/liter, micrograms/liter, micromhos/centimeter, cubic feet per second/100 milliliters, etc.
Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	Production well.
Collected or Acquired:	Collected.
Collection Frequency:	Quarterly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	Quality is stable.

Pierce County (029)

Geographic Area(s):	Pierce County, small public water systems only.

Time Period(s):	1984 to present.
Data Organization:	Tabular.
Units of Measurement:	Well location in meters Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems. Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

U.S. Geological Survey (037)

Water facility data are available through published U.S. Geological Survey reports. These data are obtained, however, from the owners of the water facilities.

Water Management Area Data Subject Area

The Water Management Area Data Subject Area includes any data pertaining to the identification, location, description, or purpose of any management area.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Spatial.
Units of Measurement:	Digitizing from maps.
Reference Method(s):	
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Spatial digitized from 7.5 minute, 15 minute and 30 minute U.S. Geological Survey Quadrangles.
Units of Measurement:	
Reference Method(s):	Geographic Information System base is State Plane Coordinates.
Unique Identifier(s):	Water Resource Inventory Area code, Water Resource Inventory Area sub-basin code, Hydrologic unit number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	One-time collection.
Continued Collection:	
Acquired From:	Department of Ecology for Water Resource Inventory Area Boundaries.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (031)

Geographic Area(s):	Statewide; Water Resource Inventory Area coverage or ARC/INFO Geographic Information System. Watersheds.
Time Period(s):	1970's to 1980's.
Data Organization:	Spatial; ARC/INFO recorded originally on 7.5 minute U.S. Geological Survey Quads. Digitized onto ARC/INFO Geographic Information System from 7.5 minute Quads.
Units of Measurement:	+/- 20 ft.
Reference Method(s):	Washington. State Plane Coordinates South Zone.
Unique Identifier(s):	Water Resource Inventory Area name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	One-time collection.
Continued Collection:	
Acquired From:	Department of Ecology for Water Resource Inventory Area Boundaries.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	Unknown.
Accuracy Variation:	Surface mapping may vary because of new stream of rivers meandering.

Pierce County (029)

Geographic Area(s):	Pierce County, Clover Chambers Creek and Gig Harbor Peninsula Basins.
Time Period(s):	1984 to present.
Data Organizations	Tabular.
Units of Measurement:	Well location in meters Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems. Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.

Data Accuracy:	95%.
Accuracy Variation:	Yes.

Recreational Caucus (025)

Geographic Area(s):	Statewide for river flow data and legal data. Nationwide for reports.
Time Period(s):	Reports 1973 through 1992. River flow data to publication of first Guide Books.
Data Organization:	Tabular and spatial. For Guide Books visual observations by boaters and U.S. Geological Survey guage readings where available.
Units of Measurement:	Cubic feet per second, gradient in feet per mile, and feet and inches on guage which is converted from a table to cubic feet per second.
Reference Method(s):	Number on gauging station for flow data. River stretches by river name and geographical features that define the start and end of a stretch.
Unique Identifier(s):	Name of river from a map. The stretch is identified by names of geographic features and sometime by names given by recreationalists.
Collected or Acquired:	Both.
Collection Frequency:	Data collected by boaters to satisfy needs of Guide Books. Data have been collected on Trip Reports.
Continued Collection:	Yes.
Acquired From:	Washington Kayak Club, Paddle Trails Canoe Club, Washington River Rafters Club.
Data Alteration:	None.
Additional Data Plans:	Data could be collected from Whatcom County, Spokane Kayak and Canoe Club, Puget Sound Paddle Club, Boeing White Water Club, Desert Rats Kayak Club in Ellensburg.
Data Accuracy:	80%.
Accuracy Variation:	Yes. U.S. Geological Survey gauging stations are subject to damage. Also, the gauging stations are too few and are not always located to reflect correct flow in a particular stretch of river.

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. this is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.

Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Seattle-King County (035)

Geographic Area(s):	Redmond-Bear Creek Groundwater Management Area. Issaquah Creek Valley Groundwater Management Area. Vashon-Maury Island Groundwater Management Area. South King County Groundwater Management Area. East King County Groundwater Management Area.
Time Period(s):	
Data Organization:	Tabular and Spatial. Latitude / Longitude points generated from maps were used to establish AutoCAD boundary files.
Units of Measurement:	
Reference Method(s):	Township / Range / Section / sixteenth Section. Latitude / Longitude.
Unique Identifier(s):	Name of groundwater management area.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	One time only.
Continued Collection:	

Acquired From:	U.S. Geological Survey, private consultants.
Data Alteration:	
Additional Data Plans:	
Accuracy:	95%.
Accuracy Variation:	

U.S. Geological Survey (037)

The U.S. Geological Survey does not maintain data by water management area. The U.S. Geological Survey does, however, collect and analyze data within a limited number of water management areas for individual cooperators. Data gathered within a water management area are stored in the National Water Information System database.

Water Pollution Data Subject Area

The Water Pollution Data Subject Area includes any data pertaining to the identification, location, and description of any pollutants to any water resource, including history, patterns, trends, and changes.

Department of Ecology (002)

Geographic Area(s):	Anybody with a permit. Water body names for watersheds. Water body numbers for specific segments of streams. Statewide.
Time Period(s):	1989 to 1992.
Data Organization:	Tabular.
Units of Measurement:	Varies and we don't have a Quality Assurance / Quality Control program in place.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Water Body Numbers.
Collected or Acquired:	Both. Monthly submittals are reentered into our computer system.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Facilities with permits.
Data Alteration:	Might correct obvious errors in reporting.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Department of Ecology (038)

See description for water pollution data in reference.

Environmental Protection Agency (016)

Geographic Area(s):	Nationwide.
Time Period(s):	All.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	**All types.** Varies widely with media and analysis methodology. Latitude / Longitude as well.
Unique Identifier(s):	Primary street identification number and common "resource" name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.

Acquired From:	U.S. Geological Survey, Department of Ecology, U.S. Bureau of Reclamation, Department of Social and Health Services.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50 to 90%.
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Statewide.
Time Period(s):	All.
Data Organization:	Tabular and spatial.
Units of Measurement:	Topographic maps, etc.
Reference Method(s):	100-200 meters.
Unique Identifier(s):	Common name and Environmental Protection Agency river reach number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey, Department of Ecology.
Data Alteration:	Adjust geographic coordinate data for facility discharges where necessary and subject to availability of alternate sources of coordinate data.
Additional Data Plans:	PCS Database Environmental Protection Agency Water Division Water Compliance Section Mr. Greg Kellog, Chief (206) 553-1728. Mr. Phil Wong, TRIS Database (206) 553-4016.
Data Accuracy:	50%.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Cedar River, Tuck Creek, Walsh Creek Diversion Creek, and Judd Creek.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	0.1 to 0.001 milligrams/liter, micromhos/centimeter, cubic feet per second/100 milliliters, etc.
Reference Method(s):	State Plane Coordinates, Public Land Survey, and aerial photographs.
Unique Identifier(s):	MW numbers, Mellor Springs, by location within landfill property.

Collected or Acquired:	Collected
Collection Frequency:	Daily to annually.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	Quality is stable.

Pierce County (027)

Geographic Area(s):	Hylebos Creek Watershed and Commencement Bay.
Time Period(s):	Commencment Bay April, 1985, to present. Hylebos Creek April, 1991, to present.
Data Organization:	Tabular.
Units of Measurement:	Temperature +/-1 degree Celsius. Conductivity 1 micromhos/centimeter. Total Dissolved Solids 1 micromhos/centimeter. Dissolved Oxygen 1 part per million. pH 0-1. Flows Gallons per minute. Metals in parts per billion. Organics in Parts per million.
Reference Method(s):	U.S. Geological Survey.
Unique Identifier(s):	Data Base for each Category.
Collected or Acquired:	Collected.
Collection Frequency:	Monthly, Weekly, Daily, Hourly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	90%.
Accuracy Variation:	

Puget Sound Water Quality Authority (017)

Geographic Area(s):	Puget Sound and rivers draining into the Sound.
Time Period(s):	March, 1989, to present.
Data Organization:	Tabular and spatial.
Units of Measurement:	Varies with fish type.
Reference Method(s):	100 to 200 meters.
Unique Identifier(s):	Latitude / Longitude, sometimes determined by Global Positioning Systems.
Collected or Acquired:	Acquired.
Collection Frequency:	Annually and monthly.
Continued Collection:	Yes.

Acquired From:	Department of Health, Department of Ecology, Department of Natural Resources, Departments of Fisheries and Wildlife and U.S. Fish and Wildlife Services.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	90-95%.
Accuracy Variation:	

U.S. Geological Survey (037)

Water pollution data are collected by the U.S. Geological Survey and maintained in the National Water Information System database. These data are usually collected for a limited period of time for a specific study. Interpretation of the study results are available as published reports. Water pollution studies have been done throughout the state.

Water Resource Organization Data Subject Area

The Water Resource Organization Data Subject Area contains any data pertaining to the characteristics of an organization that is involved in any way with the State's water resource.

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. this is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Water Resource Regulation Data Subject Area

The Water Resource Regulation Data Subject Area includes any data pertaining to the details of a water resource regulation.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Tabular.
Units of Measurement:	Cubic feet per second for surface water. Gallons per minute for groundwater. Acre and Foot per year.
Reference Method(s):	Quarter quarter Section and owner/appropriator.
Unique Identifier(s):	Water right application number, Water Rights Information System control.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	State, private, Federal and Tribal forest lands.
Time Period(s):	
Data Organization:	Spatial from orthophotos and field survey.
Units of Measurement:	
Reference Method(s):	Geographic Information System base is State Plane Coordinates.
Unique Identifier(s):	Water Resource Inventory Area stream Identification and water type code.
Collected or Acquired:	Collected.
Collection Frequency:	
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (031)

Geographic Area(s):	Private forest lands outlined within the Timber, Fish and Wildlife Project.
Time Period(s):	1980's to Present
Data Organization:	Spatial. Project involves contract between U.S. Geological Survey for hydro blue line composites, scanned by vendor then put on tape for transfer to Department of Natural Resources Geographic Information System. Department of Natural Resources updates from recent aerial photography.
Units of Measurement:	+/- 10 feet.
Reference Method(s):	Washington State Plane Coordinates South Zone.
Unique Identifier(s):	Streams; Water Resource Inventory stream number identifier assigned by the Department of Ecology. Water Bodies; U.S. Geological Survey minor codes for water bodies.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Unsure.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	Updated photogramatically by up-to-date aerial photography from flights contracted by Department of Natural Resources.
Additional Data Plans:	Unknown. Contact Steve Bernath Department of Natural Resources Frest Practices Division (206) 753-5315.
Data Accuracy:	Probably the best in the State. Field checking reveals very good.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Cedar River, Tuck Creek, Walsh Creek Diversion Creek, and Judd Creek.
Time Period(s):	1975 to 1992.
Data Organization:	Files.
Units of Measurement:	
Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	By facility name.
Collected or Acquired:	Collected.

Collection Frequency:	Daily to annually.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	100%.
Accuracy Variation:	No quality changes.

Pierce County (029)

Geographic Area(s):	Pierce County, public water systems and individual wells after August, 1990.
Time Period(s):	1984 to present.
Data Organizations	Tabular.
Units of Measurement:	Well location in meters Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems. Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. This is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	
Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows.

	Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Water Resource Study Data Subject Area

The Water Resource Study Data Subject Area includes any data about the study itself, the extent of the study area, the authors, the organization producing the study, or acquisition information, including bibliography and abstract. It does not include the specific water resource data contained in the study.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	Statehood to present.
Data Organization:	Tabular and Spatial.
Units of Measurement:	
Reference Method(s):	
Unique Identifier(s):	Geographic description.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Spatial from maps, imagery and field survey.
Units of Measurement:	
Reference Method(s):	Geographic Information System base is State Plane Coordinates.
Unique Identifier(s):	Water Resource Inventory Area subbasin Identification.
Collected or Acquired:	Collected.
Collection Frequency:	
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Cedar River,

	Tuck Creek, Walsh Creek Diversion Creek, and Judd Creek.
Time Period(s):	1980 to June, 1992.
Data Organization:	
Units of Measurement:	
Reference Method(s):	State Plane Coordinates, Public Land Survey, and aerial photographs.
Unique Identifier(s):	MW numbers, Mellor Springs, by location within property landfill boundary.
Collected or Acquired:	Collected.
Collection Frequency:	Daily to annually.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	95%.
Accuracy Variation:	Quality is stable.

Recreational Caucus (025)

Geographic Area(s):	Statewide for river flow data and legal data. Nationwide for reports.
Time Period(s):	Reports 1973 through 1992. River flow data to publication of first Guide Books.
Data Organization:	Tabular and spatial. For Guide Books visual observations by boaters and U.S. Geological Survey guage readings where available.
Units of Measurement:	Cubic feet per second, gradient in feet per mile, and feet and inches on guage which is converted from a table to cubic feet per second.
Reference Method(s):	Number on gauging station for flow data. River stretches by river name and geographical features that define the start and end of a stretch.
Unique Identifier(s):	Name of river from a map. The stretch is identified by names of geographic features and sometime by names given by recreationalists.
Collected or Acquired:	Both.
Collection Frequency:	Data collected by boaters to satisfy needs of Guide Books. Data have been collected on Trip Reports.
Continued Collection:	Yes.
Acquired From:	Washington Kayak Club, Paddle Trails Canoe Club, Washington River Rafters Club.
Data Alteration:	None.
Additional Data Plans:	Data could be collected from Whatcom County, Spokane Kayak and Canoe Club, Puget Sound Paddle

	Club, Boeing White Water Club, Desert Rats Kayak Club in Ellensburg.
Data Accuracy:	80%.
Accuracy Variation:	Yes. U.S. Geological Survey gauging stations are subject to damage. Also, the gauging stations are too few and are not always located to reflect correct flow in a particular stretch of river.

U.S. Geological Survey (037)

The U.S. Geological Survey has completed numerous water resource studies covering most of Washington State, and many more studies are ongoing. The study results are available in published U.S. Geological Survey reports. Luis Fuste', the information officer of the U.S. Geological Survey in Tacoma, maintains a current listing of completed and ongoing studies. He can be reached at (206) 593-6510.

Water Right Data Subject Area

The Water Right Data Subject Area includes any data pertaining to characteristics and details of a water right, including the location of withdraw or diversion, the amounts, frequencies, use, and point of return.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1917 to present.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	Quarter quarter Section and owner.
Unique Identifier(s):	
Collected or Acquired:	
Collection Frequency:	
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Department of Natural Resources (021)

Geographic Area(s):	Statewide.
Time Period(s):	Statehood to present.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	Quarter quarter Section.
Unique Identifier(s):	Each water right is assigned a record number.
Collected or Acquired:	Collected.
Collection Frequency:	When application is made to Department of Ecology to appropriate public water.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	

Department of Natural Resources (030)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Tabular.

Units of Measurement:	
Reference Method(s):	Public land survey.
Unique Identifier(s):	Department of Ecology Water Right Control Number.
Collected or Acquired:	Acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Department of Ecology.
Data Alteration:	Department of Ecology.
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Pierce County (029)

Geographic Area(s):	Pierce County, for selected public water systems.
Time Period(s):	1984 to present.
Data Organizations	Tabular.
Units of Measurement:	Well location in meters Parts per million and parts per billion for water quality.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems. Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

Recreational Caucus (025)

Geographic Area(s):	Statewide. We do collect data on uplands from rivers where necessary to establish recreational boating access. This is on a case-by-case basis and is mainly located in office files. We do collect regulatory data for use in filing interventions in Federal Energy Regulatory Commission licensing proceedings.
Time Period(s):	

Data Organization:	Survey of user groups, if collected at all. Data would be general river information, such as conditions of river and general flow conditions. Data comes in from trip reports.
Units of Measurement:	Cubic feet per second for stream flows. Gradient in feet per mile for rivers and streams. Feet and inches on guage converted to a flow in cubic feet per second. No particular resolution.
Reference Method(s):	Drainage basin, Water Resource Inventory Area, river or stream in that basin, reach on a river or stream.
Unique Identifier(s):	
Collected or Acquired:	Both.
Collection Frequency:	Trip reports are routinely turned in by all clubs, giving conditions on the river and how many participants. However, the trip reports are not kept in all instances. surveys of user groups. Guide Books on recreation for rivers.
Continued Collection:	
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	
Accuracy Variation:	

Well Data Subject Area

The Well Data Subject Area includes any data pertaining to the identification, location, description, or lithography of a well, including the quantity, quality, and use of water withdrawn from that well.

Well Descriptive Data Subject Group

Any location, identification, description, or lithography data about water wells, or other data that do not fit into the other data subject groups.

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1971 to present.
Data Organization:	Tabular.
Units of Measurement:	Quarter Section, Township, Range, Section.
Reference Method(s):	
Unique Identifier(s):	Quarter quarter Section and owner.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	Unique well identifiers, This is a three alpha - three numeric number with a tag attached to the well in the field and recorded on the well report.
Data Accuracy:	30 to 60%.
Accuracy Variation:	

Department of Natural Resources (021)

Geographic Area(s):	Statewide.
Time Period(s):	
Data Organization:	Tabular and spatial.
Units of Measurement:	Field measurements to measure heat flow gradients in Celsius/kilometer.
Reference Method(s):	Latitude / Longitude and Section / Township / Range.
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	

Data Accuracy:	100%.
Accuracy Variation:	

Jefferson County (032)

Geographic Area(s):	Jefferson County; political boundaries.
Time Period(s):	Early 1970's to present.
Data Organization:	Spatial from field survey.
Units of Measurement:	1/4 Section.
Reference Method(s):	Section / Township/ Range.
Unique Identifier(s):	Well owner name.
Collected or Acquired:	Acquired.
Collection Frequency:	Semi-annually.
Continued Collection:	Yes.
Acquired From:	Department of Ecology.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	

Pierce County (029)

Geographic Area(s):	Tacoma, incorporated cities and towns in Pierce County Pierce.
Time Period(s):	1984 to present.
Data Organization:	Tabular.
Units of Measurement:	Well location in meters Parts per million and parts per billion for water quality.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems. Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

Seattle-King County (035)

Geographic Area(s):	Redmond-Bear Creek Groundwater Management Area. Issaquah Creek Valley Groundwater Management Area. Vashon-Maury Island Groundwater Management Area. South King County Groundwater Management Area. East King County Groundwater Management Area.
	Specific to Township / Range / Section / sixteenth Section, SITEID, LOCALNO, Latitude / Longitude, Lambert N, Lambert E, State, County, location map, altitude, site type, use of site, date of construction, hole depth, use of water, well depth, measuring point height, water level, site status, geophysical log record, discharge, name of owner, name of driller, method of construction, type of finish, type of seal, depth to bottom of seal, method of development, hours of development, diameter of hole, depth of hole, casing diameter, depth of casing, type of opening, diameter of open Section, depth to type of Section, depth to bottom of section, type of lift, type of power and horsepower rating.
Time Period(s):	
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	Township / Range / Section / sixteenth Section. Latitude / Longitude. Lambert.
Unique Identifier(s):	U.S. Geological Survey Identification Number. Township / Range / Section.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	As new well logs are submitted to Seattle-King County Health by Department of Ecology.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey.
Data Alteration:	
Additional Data Plans:	King County parcel numbers will be added. Other Agencies responsible for groundwater management areas.

Accuracy:	80%.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Cedar River, Tuck Creek, Walsh Creek Diversion Creek, and Judd Creek.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	Feet.
Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	MW numbers.
Collected or Acquired:	Collected.
Collection Frequency:	At time of well installation.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will add groundwater descriptive data as wells are constructed.
Data Accuracy:	95%.
Accuracy Variation:	Quality is stable.

Thurston County Public Health (006)

Geographic Area(s):	Lacey, Olympia, Tumwater, Yelm, Rainier, Tenino, Bucoda, and Rochester. Thurston County.
Time Period(s):	1971 to 1992.
Data Organization:	Only in row form. Not all data are tabular.
Units of Measurement:	Sixteenth Section.
Reference Method(s):	Public Land Survey.
Unique Identifier(s):	Owner name. This is not a good system.
Collected or Acquired:	Acquired.
Collection Frequency:	
Continued Collection:	Yes.
Acquired From:	Department of Ecology.
Data Alteration:	No.
Additional Data Plans:	Unique well location and identification number.
Data Accuracy:	70%.
Accuracy Variation:	

U.S. Geological Survey (037)

Well location data are collected by the U.S. Geological Survey and maintained in the National Water Information System database by a unique identifier based on Latitude / Longitude, as well as a local name based on the Public Land Survey System.

Well Quality Data Subject Group

The condition of well water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and quality history, patterns, trends, and changes.

Department of Ecology(002)

Geographic Area(s):	Anybody with a permit. Water body names for watersheds. Water body numbers for specific segments of streams. Statewide.
Time Period(s):	1989 to 1992.
Data Organization:	Tabular.
Units of Measurement:	Varies and we don't have a Quality Assurance / Quality Control program in place.
Reference Method(s):	Latitude / Longitude.
Unique Identifier(s):	Water Body Numbers.
Collected or Acquired:	Both. Monthly submittals are reentered into our computer system.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Facilities with permits.
Data Alteration:	Might correct obvious errors in reporting.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Environmental Protection Agency (016)

Geographic Area(s):	Nationwide.
Time Period(s):	All.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	All types. Varies widely with media and analysis methodology. Latitude / Longitude as well.
Unique Identifier(s):	Primary street identification number and common "resource" name.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Annually and monthly most frequent.
Continued Collection:	Yes.

Acquired From:	U.S. Geological Survey, Department of Ecology, U.S. Bureau of Reclamation, Department of Social and Health Services.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50 to 90%.
Accuracy Variation:	

Jefferson County (032)

Geographic Area(s):	Jefferson County; political boundaries, Olympic Peninsula.
Time Period(s):	October, 1990, to present.
Data Organization:	Spatial from field survey.
Units of Measurement:	milligrams/liter. Colony forming units per 100 milliliter.
Reference Method(s):	Section / Township / Range.
Unique Identifier(s):	Parcel Identification Number, name of applicant.
Collected or Acquired:	Acquired.
Collection Frequency:	Supplied with Building Permit Applications.
Continued Collection:	Yes.
Acquired From:	Applicants for Building Permits provide data.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	Uncertain. Depends on the integrity of individuals providing data.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Cedar River, Tuck Creek, Walsh Creek Diversion Creek, and Judd Creek.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	0.1 to 0.001 milligrams/liter, micrograms/liter, micromhos/centimeter, cubic feet per second/100 milliliters, etc.
Reference Method(s):	State Plane Coordinatds and Public Land Survey.
Unique Identifier(s):	MW numbers.
Collected or Acquired:	Collected.
Collection Frequency:	Daily to annually.
Continued Collection:	Yes.
Acquired From:	

Data Alteration:	
Additional Data Plans:	We will add data as wells are constructed.
Data Accuracy:	95%.
Accuracy Variation:	No quality changes.

Pierce County (029)

Geographic Area(s):	Tacoma, incorporated cities and towns in Pierce County.
Time Period(s):	1984 to present.
Data Organization:	Tabular.
Units of Measurement:	Well location in meters Parts pr million and parts per billionfor water quality.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems. Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

Thurston County Public Health (006)

Geographic Area(s):	Lacey, Olympia, Tumwater, Yelm, Rainier, Tenino, Bucoda, and Rochester. Thurston County.
Time Period(s):	1961 to 1988. 1988 to 1992.
Data Organization:	Tabular and Spatial. Spatial from 7.5 minute U.S. Geological Survey Quadrangle maps. Computer converts to State Plane Coordinates.
Units of Measurement:	+/- 200 feet.
Reference Method(s):	State Plane Coordinates through Geographic Information System.

Unique Identifier(s):	U.S. Geological Survey Well Identification number (18N3W32D = NW 1/4 NW 1/4 Section 32, Tier 18 N, Range 3 W).
Collected or Acquired:	Both.
Collection Frequency:	On a project basis.
Continued Collection:	Yes.
Acquired From:	U.S. Geological Survey.
Data Alteration:	Convert to State Plane Coordinates for mapping.
Additional Data Plans:	Plan to start gathering consistent, on-going ground water monitoring data for the County rather than sporadically as in the past.
Data Accuracy:	75%.
Accuracy Variation:	Period 2 data have better Quality Assurance / Quality Control than Period 1 data.

U.S. Geological Survey (037)

This subject group is identical to the ground-water quality subject group for U.S. Geological Survey purposes.

Well Quantity Data Subject Group

Any data pertaining to the size, shape, capacity, and depth, or the history, patterns, trends, and changes of those data for any well. These quantity data exclude data about ground water supplying the well.

Department of Ecology (015)

Geographic Area(s):	Statewide.
Time Period(s):	1986 to present.
Data Organization:	Tabular.
Units of Measurement:	Within a block by address.
Reference Method(s):	Address.
Unique Identifier(s):	None except address location.
Collected or Acquired:	Acquired.
Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	Environmental Protection Agency, Department of Ecology Enforcement Orders, Toxic Cleanup.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	20%.
Accuracy Variation:	

Department of Ecology (015)

Geographic Area(s):	Statewide.
Time Period(s):	1986 to present.
Data Organization:	Tabular.
Units of Measurement:	Within a block by address. Unknown. Latitude / Longitude.
Reference Method(s):	Part Latitude / Longitude and part address..
Unique Identifier(s):	Unique by a number which consists of section, Township, Range, quarter, alpha, and Section number.
Collected or Acquired:	Collected.
Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	Department of Ecology adds the unique identifier.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Department of Ecology (015)

Geographic Area(s):	Statewide.
Time Period(s):	1971 to present.
Data Organization:	Tabular.
Units of Measurement:	Feet and inches, and gallons per minute.
Reference Method(s):	Part Latitude / Longitude and part address.
Unique Identifier(s):	Quarter quarter Section and owner.
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	80%.
Accuracy Variation:	Gets better with time.

Jefferson County (032)

Geographic Area(s):	Jefferson County; political boundaries, Olympic Peninsula.
Time Period(s):	October, 1990 to present.
Data Organization:	Spatial from field survey.
Units of Measurement:	Gallons/minute.
Reference Method(s):	Section / Township / Range.
Unique Identifier(s):	Parcel Identification Number, name of applicant.
Collected or Acquired:	Acquired.
Collection Frequency:	Supplied with Building Permit Applications.
Continued Collection:	Yes.
Acquired From:	Well drillers logs.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	50-75%, variable depending upon method used, i.e. pump test vs. bailing vs. air test.
Accuracy Variation:	

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Cedar River, Tuck Creek, Walsh Creek Diversion Creek, and Judd Creek.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.

Units of Measurement:	0.1 foot.
Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	MW numbers.
Collected or Acquired:	Collected.
Collection Frequency:	Quarterly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will add data as wells are constructed.
Data Accuracy:	95%.
Accuracy Variation:	No quality changes.

Pierce County (029)

Geographic Area(s):	Tacoma, incorporated cities and towns in Pierce County.
Time Period(s):	1984 to present.
Data Organization:	Tabular.
Units of Measurement:	Well location in meters Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems. Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

Thurston County Public Health (006)

Geographic Area(s):	Lacey, Olympia, Tumwater, Yelm, Rainier, Tenino, Bucoda, and Rochester. Thurston County.
Time Period(s):	1975 to 1992.
Data Organization:	Tabular.

Units of Measurement:	
Reference Method(s):	Latitude / Longitude; Public Land Survey.
Unique Identifier(s):	Text description, such as Well Number 1 in XYZ Water System.
Collected or Acquired:	Acquired.
Collection Frequency:	
Continued Collection:	Yes.
Acquired From:	City Water Utilities. State Department of Health.
Data Alteration:	No.
Additional Data Plans:	No.
Data Accuracy:	70%.
Accuracy Variation:	

U.S. Geological Survey (037)

Well quantity data are collected by the U.S. Geological Survey and maintained in the National Water Information System database. These data are gathered for specific studies. The data sources consist of driller's reports submitted to the Washington State Department of Ecology and observations in the field by U.S. Geological Survey personnel.

Well Use Data Subject Group

The use of water from a well includes quantities, frequency, duration, destination, and quality changes resulting from that use. Well use also includes any artificial recharge of ground water and any quality changes resulting from artificial recharge.

Department of Ecology (015)

Geographic Area(s):	Statewide.
Time Period(s):	1986 to present.
Data Organization:	Tabular.
Units of Measurement:	Within a block by address.
Reference Method(s):	Address.
Unique Identifier(s):	None except address location.
Collected or Acquired:	Acquired.
Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	Environmental Protection Agency, Department of Ecology Enforcement Orders, Toxic Cleanup.
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	20%.
Accuracy Variation:	

Department of Ecology (015)

Geographic Area(s):	Statewide.
Time Period(s):	1986 to present.
Data Organization:	Tabular.
Units of Measurement:	Within a block by address. Unknown, Latitude / Longitude.
Reference Method(s):	Part Latitude / Longitude and part address:
Unique Identifier(s):	Unique by a number which consists of Section, Township, Range, quarter, alpha, and number.
Collected or Acquired:	Collected.
Collection Frequency:	Annually.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	Department of Ecology adds the unique identifier.
Additional Data Plans:	
Data Accuracy:	60%.
Accuracy Variation:	

Department of Ecology (019)

Geographic Area(s):	Statewide.
Time Period(s):	1971 to present.
Data Organization:	Paper.
Units of Measurement:	Gallons per minute and hour, draw down in feet.
Reference Method(s):	Part Latitude / Longitude and part address.
Unique Identifier(s):	
Collected or Acquired:	Collected.
Collection Frequency:	Daily.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	
Data Accuracy:	10 to 50%.
Accuracy Variation:	Gets a little better over time.

Seattle-King County (036)

Geographic Area(s):	Isaaquah Creek and Cedar River drainage basins and others. McDonald Creek, Mason Creek, Cedar River, Tuck Creek, Walsh Creek and Diversion Creek.
Time Period(s):	October, 1986, to June, 1992.
Data Organization:	Tabular.
Units of Measurement:	0.1 foot. 0.1 to 0.001 milligrams/liter, micrograms/liter, micromhos/centimeter, cubic feet per second/100 milliliters, etc.
Reference Method(s):	State Plane Coordinates and Public Land Survey.
Unique Identifier(s):	MW numbers.
Collected or Acquired:	Collected.
Collection Frequency:	Quarterly.
Continued Collection:	Yes.
Acquired From:	
Data Alteration:	
Additional Data Plans:	We will add data as wells are constructed.
Data Accuracy:	95%.
Accuracy Variation:	No quality changes.

Pierce County (029)

Geographic Area(s):	Tacoma, incorporated cities and towns in Pierce County.

Time Period(s):	1984 to present.
Data Organization:	Tabular.
Units of Measurement:	Well location in meters Water quality in parts per million and parts per billion.
Reference Method(s):	Latitude / Longitude, Section / Township / Range, Parcel Number, Street Address.
Unique Identifier(s):	A State Identification Number for public water systems. Latitude / Longitude, Street Address, Parcel Number.
Collected or Acquired:	Collected and acquired.
Collection Frequency:	Monthly.
Continued Collection:	Yes.
Acquired From:	Private persons, water companies, well drillers and developers submit a good portion of this data for our review.
Data Alteration:	
Additional Data Plans:	Well construction data. Chloride conductivity levels on Gig Harbor Peninsula.
Data Accuracy:	95%.
Accuracy Variation:	Yes.

Thurston County Public Health (006)

Geographic Area(s):	Lacey, Olympia, Tumwater, Yelm, Rainier, Rochester, Bucoda, and Tenino. Thurston County.
Time Period(s):	1971 to 1992.
Data Organization:	Tabular.
Units of Measurement:	
Reference Method(s):	Latitude / Longitude and Public Land Survey.
Unique Identifier(s):	Data are only in raw form and are not well tabulated.
Collected or Acquired:	
Collection Frequency:	
Continued Collection:	
Acquired From:	U.S. Geological Survey, City Water Utilities of Lacey, Olympia, Tumwater, Washington Department of Health, and public water systems.
Data Alteration:	Generally no.
Additional Data Plans:	No.
Data Accuracy:	40%.
Accuracy Variation:	

U.S. Geological Survey (037)

This subject group is identical to the ground-water use subject group for U.S. Geological Survey purposes.

DATA ORGANIZATIONS

The individual contacts completing the Survey are listed under that organization. There could be three contacts for the person completing the survey, the person to contact for follow-up information, and the principal contact for detail information about the existing data. The referenced number is shown at the left of each organizations name.

001 National Oceanic and Atmospheric Administration

Person Completing Survey:
Charles E. Orwig, Hydrologist in Charge
220 NW 8th, Room 121 Custom House
Portland, Oregon 97209
(503) 326-2914

Principal Contact:
Tom Fero, Senior Hydrologist
220 NW 8th, Room 121 Custom House
Portland, Oregon 97209
(503) 326-2914

002 Department of Ecology

Person Completing Survey:
Aaren Purcell
Ecology Supervisor 2A
Department of Ecology
(206) 438-7084

003 Department of Ecology

Person Completing Survey:
Alan Wald, Hydrologist
Shorelands Program
Department of Ecology
(206) 438-7419

Principal Contact:
Linton Wildrich, Hydrologist
Water Resources
Department of Ecology
(206) 459-6000

004 U.S. Army Corps of Engineers

Person Completing Survey:

Scott W. Boyd, Hydraulic Engineer
Army Corps of Engineers
North Pacific Division
Reservoir Control Center
P.O. Box 2870
Portland, Oregon 97208
(503) 326-3746

Comment:

The Army Crops of Engineers maintains a CROHMS (Columbia River Operational Hydromet Management Systems) database at the North Pacific Division. It contains a very large collection of hydrological related data that covers the entire Pacific Northwest (Oregon, Washington, Idaho, and Montana). It contains data from approximately 2,000 locations and processes 60,000 values a day.

Unique Identifiers:

The location code is a 3 or 4 letter code; 3-letter codes are used for Dams (BON for Bonneville Dam); 4-letter codes are used for other locations and the last letter identifies the State (VANW for Columbia River at Vancouver, Washington). The location codes coordinate very closely with the National Weather Services Handbook 5 identifiers. For example, VANW1 is the Handbook 5 identifier for Vancouver. The U.S. Geological Survey stream numbers are also stored for some locations, but they are not used directly.

Exchange Format:

The SHEF (Standard Hydrological Exchange Format) parameter codes are used to identify the different types of data at each location. The SHEF parameter codes are part of a nation wide data exchange standard adopted by most major Federal agencies who deal with hydrologic data. A typical SHEF code for guage height would be HGIRGZZA. The first two letters identify the type of physical element being measured (HG = guage height). The third letter indicates the duration of data (I = instantaneous). The fourth letter indicates the type of data (R = observed, vs. forecast or processed). The fifth letter indicates where the data came from (G = GOES). The sixth letter indicates if the data are a maximum or minimum (Z = filler). The seventh letter is a probability code which indicates the chance a value is at or below the specified value (Z = filler). The eighth letter (A) indicates the best guage height at that location.

005 Thurston County Public Health

Person Completing Survey:
Susan Davis, Environmental Health Specialist
2000 Lakeridge Drive SW
Olympia, Washington 98502
(206) 754-4111

006 Thurston County Public Health

Person Completing Survey:
Robert D. Mead, Ground Water Program Manager
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(206) 754-4111

007 Department of Fisheries

Person Completing Survey:
Kevin Bauersfeld
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Follow-up Contact:
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008 Department of Fisheries

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010 Department of Fisheries

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011 Department of Fisheries

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012 Department of Fisheries

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015 Department of Ecology

Person Completing Survey:

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Department of Ecology Water Quality Program
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Follow-up Contact:

Aaren Purcell
Information Supervisor, Water Quality Program
Department of Ecology
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Olympia, Washington 98504-7600
(206) 548-7084

016 Environmental Protection Agency

Person Completing Survey:

Bill Bogue
U.S. Environmental Protection Agency
Geographic Information System Section
1200 6th Avenue MS ES-97
Seattle, Washington
(206) 553-1676

017 Puget Sound Water Quality Authority

Person Completing Survey:
Chris Prescott, Chief Scientist
Puget Sound Water Quality Authority
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Olympia, Washington 98504-0900
(206) 493-9410

018 U.S. Army Corps of Engineers

Person Completing Survey:
Kevin J. Sommerland
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Walla Walla, Washington 99362
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Follow-up Contact:
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019 Department of Ecology

Person Completing Survey:
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020 Seneca Food Corporation

Person Completing Survey:
Kathy Doig Ellertson
Technical Services Manager
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(509) 786-2926

021 Department of Natural Resources

Person Completing Survey:
Miriam Laukers
Natural Resources Program Specialist
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022 Department of Natural Resources

Person Completing Survey:
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Follow-up Contact:
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023 Department of Health

Person Completing Survey:
Richard Siffert
Planning Program Manager
Department of Health - Environmental Health Program
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024 Makah Tribal Planning Department

Person Completing Survey:
James D. Dougherty
Water Resource Planner
Makah Tribe
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Neah Bay, Washington 98357
(206) 845-2201 Extension 300

025 Recreational Caucus

Person Completing Survey:
Tom Deschener
Board Director, Chair Water Resources Committee
430 SW 206th St.
Normandy Park, Washington 98166-4132
(206) 824-4042

Follow-up Contact:
Robert Gordon
2832 N 188th St.
Seattle, Washington 98133
(206) 525-6623

Organization's Principal Contact
Josh Baldi
Conservation Director
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Seattle, Washington 98105
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026 Department of Ecology

Person Completing Survey:
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Water Quality Specialist
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(206) 491-2209

Follow-up Contact:
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027 Pierce County

Person Completing Survey:
Hyun J. Um
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028 Pierce County

Person Completing Survey:
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3629 South "D" St.
Tacoma Washington 98408
(206) 596-2845

Principal Contact
Jane Hedges
Section Manager, Water Resource Section
3629 South "D" St.
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029 Pierce County

Person Completing Survey:
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Principal Contact
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030 Department of Natural Resources

Person Completing Survey:
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031 Department of Natural Resources

Person Completing Survey:
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Principal Contact
Steve Bernath
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Olympia Washington 98504-7022
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032 Jefferson County

Person Completing Survey:
Larry Fay
Environmental Health Director
815 Sheridan
Port Townsend Washington 98368

033 University of Washington

Person Completing Survey:
Kimball E. Jones
Environmental Health Officer
Environmental Health and Safety
MS: GS-05
Seattle Washington 98195
(206) 543-9510

Principal Contact
Don G. Brown, Ph.D.
Director, Environmental Health and Safety
MS: GS-05.
Seattle Washington 98195
(206) 543-7262

034 Department of Natural Resources

Person Completing Survey:
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Division of Land and Aquatics Conservation
Natural Resources Building
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Olympia Washington 98504-7022
(206) 902-1100

035 Seattle-King County

Person Completing Survey:
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Environmental Health Specialist
Health Department
1627 Smith Tower
Seattle Washington 98104
(206) 296-4751 or 296-4834

Principal Contact
Bill Lasby
Supervisor, Groundwater Program
Health Department
1627 Smith Tower
Seattle Washington 98104
(206) 296-4795

036 Seattle-King County

Person Completing Survey:
Anne F. Holmes
Senior Engineer
Solid Waste Division
400 Yesler Way, Rm. 600
Seattle Washington 98104-2637
(206) 296-4411

Follow-up Contact:
Shirley Jurgenson, P.E.
Supervising Engineer, - Solid Waste Division
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(206) 296-4411

037 U.S. Geological Survey

Person Completing Survey:
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U.S. Geological Survey
Water Resource Division
1201 Pacific Avenue, Suite 600
Tacoma, Washington 98402

038 Department of Ecology

Person Completing Survey:
Charles San Juan
Toxics Cleanup Program

The Toxics Cleanup Program has not implemented a database for water quality or other toxic information. They are currently storing data about facilities and sites they regulate on standard database programs, such as Lotus, DBASE, etc. They have plans to track and compile information in the future and are interested in what other programs are doing.

Currently, very little ground water data collected for toxic cleanup sites is available in readily usable form. The data are submitted to the Department as paper reports which makes it difficult for staff to perform rapid, accurate analysis. There is an effort to establish a procedure so ground water data submitted to the Department and stored in a consistent manner.

039 U.S. Army Corps of Engineers

Person Completing Survey:
David F. Fox
Dredged Material Management Office
U.S. Army Corps of Engineers
P.O. Box 3755
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Seattle, Washington 98124-2255
(206) 764-3768
FAX (206) 764-6602

The Dredged Analysis Information System is a relational database created by the Seattle district of the Army Corps of engineers to manage data associated with the characterization of dredged material proposed for disposal under Section 404 of the Clean Water Act. It contains field sampling data; chemical and physical testing data, including 58 standard chemicals of concern; sediment conventionals and grain sale; and bioaccumulation. Quality assurance data associated with chemical and biological testing are also maintained, including precision and recovery data for chemical testing, and water quality monitoring and positive control data for biological testing.

040 U.S. Army Corps of Engineers

Person Completing Survey:
Department of the Army
North Pacific Division Corps of Engineers
P.O. Box 2870
Portland Oregon 97208-2870

Very similar to survey 004.

041 U.S. Forest Service

Person Completing Survey:
Karl Stein
U.S. Department of Agriculture
U.S. Forest Service
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Portland, Oregon 97208-3623
(503) 326-4091

In fiscal year 1989, Region 6 developed and tested a basin-wide fisheries and watershed integrated stream survey procedure. This procedure was in response to Forest and Regional needs to provide a consistent approach to characterize aquatic and riparian conditions on whole stream systems for a variety of project scoping and area planning activities.

The efforts produced a field methodology handbook, computer software data entry and analysis programs, and two region-wide training sessions. The PC based software produces a minimum of six summary tables to facilitate data interpretation. The stream survey provides a basic quantitative description of stream habitat and watershed conditions, and defines fisheries relative abundance and distribution for a basin.

042 Soil Conservation Service

Person Completing Survey:
U.S. Department of Agriculture
Soil Conservation Service
Rock Pointe Tower II, Suite 450
W 315 Boone Avenue
Spokane, Washington 99201-2348

The following reference was developed as part of the Soil Conservation Service's concerted effort to integrate water supply forecast product use into field application and conservation planning in the western states. The reference was primarily

developed for the Soil Conservation Service, Conservation Districts, and other resource management related personnel familiar with the USDA Soil Conservation Service's Snow Survey Program.

The reference serves as a general bibliography and access document which identifies water supply related products under development or available from the Soil Conservation Service and other agencies. It is not intended to be a complete bibliography of water supply related publications or products, nor to provide detailed information concerning collection of Snow Survey Program data. It is primarily intended to assist in resource management, conservation planning, and conservation practice application, particularly at the field level. Technical disciplines responsible for the various elements of the Soil Conservation Service's conservation program should be consulted for applicability of these products to specific locations.

Water supply information is a critical conservation planning element in the western states. some Soil Conservation Service planning objectives and conservation practices which are related to the forecast water supply include:

Seasonal irrigation planning
Reservoir planning and operation
Range planning and management
Wildlife habitat management and improvement
Recreation planning
Timber management
Erosion control

In addition to water supply related information, the Centralized Forecast System operational database also contains selected daily climatic data for weather stations in the western states. This information can be applicable in virtually every aspect of the Soil Conservation Service's soil and water conservation mission and should provide an invaluable source of data for all resource management agencies.

The Water Supply Products General Description and Access section is written primarily for Soil Conservation Service and other water supply product users who are not familiar with the Snow Survey Program, water supply products, and access procedures. It provides a general description of each major water supply product type, the status of their development, and computer access requirements.

The Water Supply Products Quick Access Spreadsheet is intended to be the primary document for people who wish to quickly access Soil Conservation Service and cooperating agencies' water supply related information. It briefly describes each product, access procedures, and requirement.

The Product Description Section provides a narrative description of the water supply product listed in the first column of the spreadsheet. It also describes product parameters and provides an example of the actual product output. It provides more

detailed information for those who are not familiar with available water supply products.

The Operational Database Commands Section is the source of virtually all historical water supply data which is collected and/or used by the Soil Conservation Service instream flow forecasting. Some of the major data types that can be retrieved include snow course measurements, telemetered sensor values, reservoir storage data, U.S. Geological Survey observed streamflow volume, National Weather Service monthly precipitation, and National Oceanic and Atmospheric Administration climate station data.

The Soil Conservation Service's Water Supply Products Information Directory provides a directory of Soil Conservation Sevice's Snow Survey Program staff leaders and telephone access numbers in Portland. It is not a complete directory of personnel engaged in the program, but provides key Soil Conservation Service contacts for water supply products information in each state, at the West National Technical Center, and at the National Headquarters.

043 Quileute Indian Tribe

Person Completing Survey:

Ronald Barnes, Water Resource Biologist
Quileute Tribe
P.O. Box 187
La Push, Washington 98350-0187
(206) 374-6163
FAX (206) 374-9250

Quality of Water Quillayute River Basin, Washington
U.S. Geological Survey
Water Resources Investigations
Report 83-4162 1984

Documents for two years (1976-77) the distribution of streamflow in the major tributaries of the Quillayute River. Describes two summers for water quality conditions in streams and in the Quillayute estuary during low stream flow. Evaluate the water quality characteristics, sediment discharge, and stream flows, and attempts to determine the causes of the differences in these characteristics among the major tributaries.

Quillayute Watershed Inventory and Assessment
David E. Pflug, 1977

Work includes weekly profiles of water quality and chemistry parameters on selected streams, including dissolved oxygen, pH, conductivity, and discharge.

044 Department of Ecology

Person Completing Survey:
Tim Determan
Technical Assistant
P.O. Box 7600
Olympia Washington 98504-7600
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DATA DEFINITIONS

The full data definitions for the data subject areas and data subject groups are listed below. The definitions are in alphabetical order by data subject area and data subject group within data subject area. The data definition enhancements provided in the Surveys have not been included in these data definitions.

Climate Data Subject Area

Climate is the meteorological conditions, including temperature, precipitation, wind, barometric pressure, evaporation, transpiration, etc., that prevail in a specific area or region. Weather is the meteorological conditions at a specific location or in an area, at a specified time or during a time interval. Climate includes glacier data but excludes snow pack data.

The Climate Data Subject Area includes any data pertaining to either the prevailing meteorological conditions of an area or region, or the specific meteorological conditions at a particular location and time.

Dam Data Subject Area

A *dam* is a man-made structure of any size built across a stream that blocks, alters, adjusts, or otherwise controls the flow of water in that stream or the level of water upstream of that structure. A dam includes any such structure that is proposed, planned, under construction, in use, or abandoned and still existing in some form. A dam does not include a natural formation or condition that blocks, alters, or adjusts the flow or level of a stream. If any portion of a dam is located within the State it is considered to be part of the State's water resource data inventory.

The Dam Data Subject Area includes any data pertaining to the identification, location, and description of a dam, excluding hydropower production, stream data, and reservoir data.

Estuary Data Subject Area

An *estuary* (estuarine environment) is a surface water body that is semi-enclosed by land but has open, partly obstructed, or has sporadic access to open salt water. It is at least occasionally diluted by fresh water resulting in appreciably reduced salinity, and salinity may periodically increase higher than ocean waters due to evaporation. Estuaries continue upstream to the point where salinity measures less than 0.5 o/oo of average annual low flow. An estuary is any estuarine environment and may include wetland and deep water components. Puget Sound is considered an estuary, not an ocean.

The Estuary Data Subject Area includes any data pertaining to the location, identification, description, quantity, quality, or use of estuary water.

Geographic Locators Data Subject Area

Geographic Locators are systems that provide specific locations on, below, or above the Earth's surface. Several Geographic Locator systems are in common use. The *Latitude - Longitude System* represents points on the Earth's surface expressed in angles as degrees, minutes, and seconds, or as radians. Latitude is the angle above or below the Earth's equator. Longitude is the angle east or west of the prime meridian in Greenwich, England. The *Public Land Survey System* is a grid system of land subdivision that consists of quadrangles 24 miles square. Each quadrangle normally contains 16 townships, which normally contain 36 sections. Sections are further subdivided as necessary. The *State Plane Coordinate System* defines a point on the Earth's surface within a geographic grid system. Each system is separate within a state, as opposed to the universal systems. An arbitrary point of origin is defined outside the State Plane Coordinate Zone so that all values are positive. The *Universal Transverse Mercator System* identifies points on the surface of the earth with a hemisphere indicator, a zone number, an easting value, and a northing value, specified in meters. the UTM scheme is intended for use between 80 degrees south Latitude and 84 degrees north Latitude. It is not acceptable beyond these limits.

The Geographic Locator Data Subject Area includes any data pertaining to the details of a Geographic Locator or locations based on Geographic Locators.

Ground Water Data Subject Area

Ground water is that part of the State's water resource that exists beneath the earth's surface, or beneath the bed of any stream, lake, reservoir, or other body of surface water, or in the pores or fractures of rocks or unconsolidated material. Ground water may be static, or it may flow, percolate, or move in some manner.

The Ground Water Data Subject Area includes any data pertaining to the location, identification, description, quantity, quality, or use of ground water.

Ground Water Descriptive Data Subject Group

Any location, identification, or description data about ground water, or other data about ground water that do not fit into the other data subject groups.

Ground Water Quality Data Subject Group

The condition of ground water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to

pollutants; any treatments to improve water quality; and the water quality history, patterns, trends, and changes.

Ground Water Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns, trends, or changes of those data for any ground water. Ground water quantity data show the supply of ground water, including artificial recharge of ground water.

Ground Water Use Data Subject Group

Any data pertaining to the use of ground water in place below the earth's surface, or the collective or summarized use of ground water, but excludes the specific use of ground water. The specific uses are included in the method of withdraw, such as Water Wells, Springs, and Water Systems.

Hydropower Site Data Subject Area

A *hydropower site* is any location where power is being generated by water, including power generation that is proposed, planned, under constructed, in use, or where such generation has been abandoned and the facility still remains in some form. A hydropower site generally consists of diversion of water by a dam or other structure, a delivery of water to the generation facility, and a return of the water.

The Hydropower Site Data Subject Area includes any data pertaining to the identification, location, description, and any other characteristics of a hydropower site, excluding information about dams that produce hydropower and reservoirs behind those dams.

Lake Data Subject Area

A *lake* (lacustrine environment) is a surface water body of any size that is situated in a natural topographic depression, including all lacustrine environments, such as ponds, pools, etc., where the salinity is below 0.5 o/oo. A lake includes permanently flooded lakes and tidal lakes up to the high water lines, but excludes areas of abnormal flooding. A lake may have wetland and deep water components.

A wide portion of a stream where the width and depth are significantly increased and the water flow is significantly reduced is considered to be a lake. A lake differs from a reservoir in that it occurs naturally rather than by a man-made structure. If any portion of a lake is within the State it is considered part of the State's water resource.

The Lake Data Subject Area includes any data pertaining to the identification, location, description, quantity, quality, or use of lake water.

Lake Descriptive Data Subject Group

Any location, identification, or description data about a lake, or other data about lakes that do not fit into the other data subject groups.

Lake Quality Data Subject Group

The condition of lake water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and quality history, patterns, trends, and changes.

Lake Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns, trends, or changes of those data for any lake. Lake quantity data represent the water supply in a lake. Monitoring stations are included as lake quantity data.

Lake Resource Data Subject Group

Any biological, physical, or chemical resource that exists in a lake or has a high dependency on a lake.

Lake Use Data Subject Group

The use of water in a lake or removed from a lake. Lake use data include points of diversion, quantities, frequency, duration, and points of return, and any quality changes resulting from use. Lake water use data do not include data about Water Systems or the specific off-body use of water, but include summarized data about off-body water use.

Land Parcel Data Subject Area

A *Land Parcel* is a legally identified, described, and registered portion of land within a County. A Land Parcel is the legal unit of land that is bought and sold, taxed, surveyed, etc. Land Parcels are designated and identified by a scheme established by the County Assessor. These schemes may vary widely from County to County.

The Land Parcel Data Subject Area includes any data pertaining to the identification, description, location, and use of land parcels.

Land Parcel Descriptive Data Subject Group

Any data pertaining to the identification, location, description, or ownership of land parcels, or other data about land parcels that do not fit into the other data subject groups.

Land Parcel Use Data Subject Group

Any data pertaining to the use of land parcels, including detailed uses of a land parcel, summary data about land parcels collectively, and land use classification schemes.

Marsh/Swamp/Bog Data Subject Area

Marshes, *swamps*, and *bogs* (palustrine environment) are surface water bodies that include nontidal areas dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and areas lacking vegetation, where the salinity is less than 0.5 o/oo. These palustrine environments include the areas commonly known as marshes, swamps, bogs, fens, mires, moors, and small, shallow, permanent or intermittent ponds. They may have wetland and deep water components.

The Marsh/Swamp/Bog data subject area includes any data pertaining to the identification, location, description, quantity, quality, or use of these palustrine areas.

Ocean Data Subject Area

An *ocean* (marine environment) is a surface water body in the form of open salt water overlying the continental shelf and their associated high energy coastline where the salinity exceeds 30 o/oo with little or no dilution outside the mouths of estuaries. These marine environments include subtidal areas that are continuously submerged and intertidal areas that are periodically exposed and flooded by the tides. Ocean waters continue shoreward to the limit of tidal inundation by the extreme high water of spring tides. Oceans may contain wetland and deep water components.

The Ocean Data Subject Area includes any data pertaining to the location, identification, description, quantity, quality, or use of oceans.

Reservoir Data Subject Area

A *reservoir* (lacustrine environment) is a surface water body of any size that is formed with a man-made structure that controls the water level or down-stream flow for any purpose, regardless of the period of time it holds water, where the salinity is below 0.5 o/oo. A reservoir includes permanently flooded reservoirs and tidal reservoirs up to the high water lines, but excludes areas of abnormal flooding. A reservoir is a lacustrine environment the same as a lake and may have wetland and deep water components.

A reservoir includes any reservoir that is proposed, planned, under construction, in use, or abandoned and still existing in some form. A reservoir differs from a lake in that it is formed by a man-made structure rather than being formed naturally. If any portion or a reservoir is within the State, it is considered part of the State's water resource.

The Reservoir Data Subject Area includes any data pertaining to the identification, location, description, quantity, quality, or use of reservoir water.

Reservoir Descriptive Data Subject Group

Any location, identification, or description data about a reservoir, or other data about reservoirs that do not fit into the other data subject groups.

Reservoir Quality Data Subject Group

The condition of reservoir water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and quality history, patterns, trends, and changes.

Reservoir Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns, trends, or changes of those data for any reservoir. Reservoir quantity data represent the water supply in a reservoir. Monitoring stations are included as reservoir quantity data.

Reservoir Resource Data Subject Group

Any biological, physical, or chemical resource that exists in a reservoir or has a high dependency on a reservoir.

Reservoir Use Data Subject Group

The use of water in a reservoir or removed from a reservoir. Reservoir use data include points of diversion, quantities, frequency, duration, points or return, and any quality changes resulting from use. Reservoir use data do not include data about Water Systems or the specific off-body use of water, but include summarized data about off-body water use.

Snow Pack Data Subject Area

A *snow pack* is a surface water body in the form of a snow formed from the annual solid precipitation of ice crystals that remain in crystalline form on the earth's surface for a portion of the year, but are ultimately released as water through melting. A snow pack is usually annual, but may be perennial, and does not substantially move during its existence. A snow pack includes water held in the snow pack but excludes glaciers.

The Snow Pack Data Subject Area includes any data pertaining to the identification, location, description, quantity, quality, or use of snow.

Snow Pack Descriptive Data Subject Group

Any location, identification, or description data about snow packs, or other data about snow packs that do not fit into the other data subject groups.

Snow Pack Quality Data Subject Group

The condition of a snow pack, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollution; and quality history, patterns, trends, and changes..

Snow Pack Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns, trends, or changes of those data for any snow pack. Snow pack quantity data represent the water supply in snow.

Spring Data Subject Area

A *spring* is a surface water body in the form of a natural flow of water from below the earth's surface to the earth's surface, including natural artesian and man-made springs, but excluding artesian wells, regardless of the period of time, frequency, or length of time that water flows. A spring is also defined as the natural intersection of ground water with the earth's surface. Springs may be visible or they may be hidden beneath other water bodies, such as lakes or streams.

The Spring Data Subject Area includes any data pertaining to the identification, location, description, quantity, quality, or use of a spring or spring water.

Spring Descriptive Data Subject Group

Any location, identification, or description data about springs, or other data about springs that do not fit into the other data subject groups.

Spring Quality Data Subject Group

The condition of spring water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and quality history, patterns, trends, and changes.

Spring Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns and trends of those data for any spring, excluding the use of water from a spring. Spring quantity data represent the water supply in springs.

Spring Resource Data Subject Group

Any biological, physical, or chemical resource that exists in a spring or has a high dependency on a spring.

Spring Use Data Subject Group

The use of water in a spring or removed from a spring. Spring use data include points of diversion, quantities, frequency, and duration, and any quality changes resulting from use. Spring use data do not include data about Water Systems or the specific off-body use of water, but include summarized data about off-body water use.

Stream Data Subject Area

A *stream* (riverine environment) is a surface water body in the form of a body of water moving over the earth's surface in a bed or channel that is naturally or artificially created which periodically or continuously contains moving water or which forms a connecting link between two bodies of standing water. Streams end at the point where the salinity exceeds 0.5 o/oo of average annual low flow or where it enters a lake or reservoir. A stream begins where the tributary originates or where it leaves a lake or reservoir. A stream need not originate or terminate in the State, but does need to flow within the State at some point on its course to be part of the State's water resource.

A stream includes any body of water regardless of its size, such as a river, stream, creek, brook, or rivulet, whether the flow is year-round or intermittent. A stream is supplied by surface runoff, near-surface quick flows, and ground water discharges. Discharges from urban development, such as road ditches, storm drains, gutters, etc., are a source of stream water, but are considered part of Water Facilities, not streams. A stream is any riverine environment and may have wetland and deep water components.

The Stream Data Subject Area includes any data pertaining to the identification, location, description, quantity, quality, or use of stream water.

Stream Descriptive Data Subject Group

Any location, identification, or description data about streams, or other data about streams that do not fit into the other data subject groups.

Stream Quality Data Subject Group

The condition of stream water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and quality history, patterns, trends, and changes.

Stream Quantity Data Subject Group

Any data pertaining to the capacity, flow, and volume, or the history, patterns, trends, or changes of those data for any stream. Stream quantity data represent the water supply in a stream. Monitoring stations are included as stream quantity data.

Stream Resource Data Subject Group

Any biological, physical, or chemical resource that exists in a stream or has a high dependency on a stream.

Stream Use Data Subject Group

The use of stream water, whether instream or out of stream, including points of diversion, quantities, frequency, duration, points of return, and any quality change resulting from use. Stream water use data do not include data about Water Systems or the specific off-body use of water, but include summarized data about off-body water use.

Upland Data Subject Area

Upland is the solid ground of the earth's surface that is exposed and is not covered or saturated by water.

The Upland Data Subject Area includes any data pertaining to the upland, including natural features, topography, soil, vegetation, use, classification, etc.

Water Facility Data Subject Area

A *water facility* is an infrastructure that is created or constructed to deliver, move distribute, store, or discharge water. A water facility includes the physical works for withdrawal or diversion, conveyance to delivery at the point of use, the actual use, release from use, return to the water resource, and discharge into the water resource. Water facilities include pipes, tanks, ditches, culverts, channels, canals, siphons,, as well as systems of facilities involved in the supply, distribution, and return of water. Water facilities also include sewage collection and treatment systems that discharge into the water resource, storm drains, wasteways, etc. Water facilities may combine water from several sources and may split water into several places of use or discharge.

The Water Facility Data Subject Area includes any data pertaining to the characteristics and details of a water facility from the point of diversion or withdraw to the point of return.

Water Management Area Data Subject Area

A *water management area* is any natural or arbitrary area, or set of areas, with specific boundaries, defined by any person or organization that has jurisdiction to establish such areas and boundaries, that is used, has been used, or will be used in any manner for the management of the State's water resources.

The Water Management Area Data Subject Area includes any data pertaining to the identification, location, description, or purpose of any management area.

Water Pollution Data Subject Area

Water pollution is the contamination of a water resource by the discharge or introduction of any biological, physical, or chemical substance, that adversely affects the condition of water, or makes that water harmful or unfit to living things, or limits its usefulness in any manner. Water pollution includes the source of a pollutant, the hazard created by that pollutant, the risk that pollutant will reach water, the tracking and monitoring of pollutants, and the toxic fate and mobility of pollutants. It excludes the vulnerability of surface water or ground water to pollutants.

The Water Pollution Data Subject Area includes any data pertaining to the identification, location, and description of any pollutants to any water resource, including history, patterns, trends, and changes.

Water Resource Organization Data Subject Area

An *organization* is any group of one or more people organized for a specific social or legal purpose. An organization may be for business or pleasure, and it may exist in a variety of legal forms, such as unincorporated, incorporated, sole proprietorship, etc. An organization may be profit or nonprofit, social, commercial, industrial, professional, governmental, and may be centralized or decentralized.

A *water resource organization* includes governmental agencies, universities, individuals, companies, laboratories, well drillers, owners, purveyors, Indian tribes, etc., who control, manage, use, contribute, monitor, evaluate, or are otherwise involved in management of, or are concerned about, the State's water resources.

The Water Resource Organization Data Subject Area contains any data pertaining to the characteristics of an organization that is involved in any way with the State's water resource.

Water Resource Regulation Data Subject Area

A *water resource regulation* is any statement, directive, permit, or order from an authority that has jurisdiction regarding the use, control, quantity; quality, or other conditions about a water resource. Water resource regulations include use, capacity, design, minimum flows and levels, and quality regulations.

The Water Resource Regulation Data Subject Area includes any data pertaining to the details of a water resource regulation.

Water Resource Study Data Subject Area

A *water resource study* is any study, report, thesis, presentation, plan, technology transfer, proposals, project, or any other document that contains data, projections, trends, history, or other information about the State's water resource. Projects may be planned, in progress, or completed. The study may be from any organization, individual, government agency, or university.

The Water Resource Study Data Subject Area includes any data about the study itself, the extent of the study area, the authors, the organization producing the study, or acquisition information, including bibliography and abstract. It does not include the specific water resource data contained in the study.

Water Right Data Subject Area

A *water right* is any formal document specifying the terms and conditions that authorize an individual or organization to withdraw or divert a specified amount of water from a specified place for a specific beneficial purpose on a specific piece of property. A water right includes applications, permits, certificates, claims to continuous use since 1917, and the relinquishment and recession of any water right.

The Water Right Data Subject Area includes any data pertaining to characteristics and details of a water right, including the location of withdraw or diversion, the amounts, frequencies, use, and point of return.

Well Data Subject Area

A *well* is any excavation, hole, or shaft of any size, depth, or construction that is dug, drilled, cored, bored, washed, driven, or jetted by any means into the earth to locate, divert, artificially recharge, or withdraw ground water for any use, whether or not it is actually used. A well includes water supply wells, resource protection wells, and test wells. It includes wells that are under construction, in use, removed, or abandoned, as well as geothermal and hydrocarbon wells. Wells that are proposed or planned are not included.

The Well Data Subject Area includes any data pertaining to the identification, location, description, or lithography of a well, including the quantity, quality, and use of water withdrawn from that well.

Well Descriptive Data Subject Group

Any location, identification, description, or lithography data about water wells, or other data that do not fit into the other data subject groups.

Well Quality Data Subject Group

The condition of well water, including its purity; types of biological, physical, and chemical substances; its usefulness for specific purposes; its vulnerability to pollutants; any treatments to improve water quality; and quality history, patterns, trends, and changes.

Well Quantity Data Subject Group

Any data pertaining to the size, shape, capacity, and depth, or the history, patterns, trends, and changes of those data for any well. These quantity data exclude data about ground water supplying the well.

Well Use Data Subject Group

The use of water from a well include quantities, frequency, duration, destination, and quality changes resulting from that use. Well use also includes any artificial recharge of ground water and any quality changes resulting from artificial recharge.

DATA AVAILABILITY SURVEY

The Data Availability Survey form is shown on the following pages. The contents have been adjusted based on information received from individuals completing the survey.

Information contained in the *Water Resource Data Source Book* can be enhanced by completing Surveys and returning them to the Department of Ecology. The Survey forms may be removed from this *Source Book* and/or copied as necessary to provide the information.

Survey forms can be sent to:

Department of Ecology
Water Resource Section
P.O. Box 47600
Olympia, Washington 98504-7600

WATER RESOURCE DATA AVAILABILITY SURVEY INSTRUCTIONS

1) We are asking you to respond to this survey using your own knowledge of your organization's water resource data, and information immediately available to you. This may require some investigation and checking with your peers within your organization. But we are not asking you to conduct any major research efforts. The focus is on what you already know.

   If some other organization (or another group within your organization) is a better source for a certain kind of data, cite that organization in Question 9. Don't attempt to cover that other organization's view or knowledge of the data in your survey response.

2) Review the data subject area and data subject group descriptions contained on the attached listing (entitled "Data Descriptions"). Determine which data subject areas and data subject groups apply to the data you keep. If a data subject area which applies to you contains data subject groups, we are not asking for responses concerning the data subject area as a whole, but simply for the applicable data subject groups within that data subject area.

3) Make a copy of questions A, B.1-10, and C (pages 1-4) of the questionnaire for each data subject area and data subject group identified above. Place the correct label from attached label sheet at the top of page 1 of the questionnaire (under the "Data Subject Area/Data Subject Group Name:" line).

   If you prefer to use your computer to complete the questionnaire, you may use the question numbers contained on the questionnaire to identify your responses, without retyping each question. If you wish to send us a diskette, we can accept either 5 1/4 " or 3 1/2" media, in either high or normal density, with text in Wordperfect for DOS or Windows, MS Word for DOS or Windows, or ASCII format. Be sure to indicate the data subject area or data subject group at the top of each set of questions.

4) Complete the questionnaire for those data subject areas and data subject groups for which you keep data.

5) If you keep data in a data subject area or data subject group in more than one way, please reflect that in your answer. If you are asked to select from several choices, check all alternatives that apply. There is no need to indicate which portions of the subject area or data subject group apply to which responses. But it will be helpful to know that more than one apply.

6) Once you have completed the questions on pages 1-4 for each data subject area and data subject group which applies to your organization, complete the final page of questions (page 5) concerning the survey as a whole.

7) If there is not enough space on this form for your responses, feel free to attach additional pages. Please remember, that this is a summary-level inventory. Do *not* attach sample forms or reports; that information is too detailed for the purpose of this survey.

8) If you have questions or concerns, feel free to contact:

Mike Brackett, Data Resource Coordinator
Department of Information Services
(206) 586-0221

Water Resource Data Management Task Force

WATER RESOURCE DATA AVAILABILITY SURVEY QUESTIONNAIRE

August 3, 1992

Data Subject Area / Data Subject Group Name: _____

A. Do you have any suggested adjustments to the Data Subject Area or Data Subject Group definition? Please describe (use additional sheets if necessary).

_____

_____

_____

_____

_____

_____

B. Data characteristics for the Data Subject Area or Data Subject Group:

1. What geographic area(s) does the data reflect?

City name(s): _____

County name(s): _____

Geographic feature name(s) (for example: drainage, watersheds, crests, shorelines):

_____

_____

Region name(s) (for example: Northeast Washington, West of the Cascades):

_____

_____

Specific water resource name(s) (for example: Bear Creek, Lake Quinault):

_____

_____

Statewide: / /

Other (please describe): _____

_____

2. What time period(s) does the data reflect? (Include specific years, months and dates as appropriate when the data were originally collected or measured. For example, from March, 1988 to May 1990.)

	From	To
Period 1:	_____	_____
Period 2:	_____	_____
Period 3:	_____	_____
Period 4:	_____	_____
Period 5:	_____	_____

3. How are the data organized and recorded?

Tabular /_/ (rows and columns)

Spatial /_/ (Geographic Information System data)

If spatial, please indicate the method used to capture/generate the data: (for example, air photo, field survey):

_____

_____

_____

4. What are the units of measurement used in recording the data, and the accuracy or resolution for those units of measurement? (For example, to the nearest ten meters. Include as many resolution/accuracy levels as apply to your data. If the resolution spans several levels, please indicate in the "resolution" column a range.)

	Resolution	Unit of Measure
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

5. What is the geographic reference method(s) for defining locations relative to the data? (Examples: Latitude / Longitude, State Plane Coordinates, Public Land Survey.)

_____

_____

6. What method is used to uniquely identify each water resource item in this Data Subject Area or Data Subject Group? (For example, how are surface water bodies identified?)

_____

_____

7. Are these data collected by your organization, or acquired from another organization?

Collected /__/ Acquired /__/

a. If collected, how frequently are they collected?

Annually: /__/ Weekly: /__/ Hourly: /__/

Monthly: /__/ Daily: /__/

Other (please specify): _____

Do you plan to continue collecting these data for the next five years?

Yes /__/ No /__/

b. If data are acquired, from what other organization(s) are they acquired?

_____

_____

Do you alter or adjust the data in any way after you acquire them? If so, please describe:

_____

_____

8. Are there additional data in this Data Subject Area or Data Subject Group that you plan to start keeping and/or collecting within the next five years? If yes, please describe the nature and source of the new data:

_____

_____

_____

9. Are there other organizations or individuals who have data in this Data Subject Area or Data Subject Group? If so, please share contact information with us (organization name, location, contact person, phone number):

_____

_____

_____

10. How would you characterize the accuracy of the data you keep in this Data Subject Group or Data Subject Area? That is, how well do they reflect the real world?

_____% (1-100)

Does the accuracy vary over time? If so, please describe, in relation to time frames identified in question Number 2:

_____

_____

_____

C. If this is a Data Subject Area, are there any Data Subject Groups not identified here which should be explored for this data subject area? If so, please describe:

_____

_____

_____

D. Are there any additional water resource Data Subject Areas not identified here which should be explored? If so, please describe:

_____

_____

_____

Person who completed this form.

Name: _____

Position or Title: _____

Address: _____

Phone Number: _____

Follow-up contact for this survey if different from above.

Name: _____

Position or Title: _____

Address: _____

Phone Number: _____

Organization's principal contact for water resource data if different from above.

Name: _____

Position or Title: _____

Address: _____

Phone Number: _____

Thank you very much for your help. Your response to this survey will be a key contribution to the State of Washington's *Water Resource Data Guide Book.*